DOCUMENT RESUME

ED 302 618 UD 026 591

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TITLE Restructuring California Education: A Design for Public Education in the Twenty-First Century. Recommendations to the California Business Roundtable.

INSTITUTION Berman, Weiler Associates, Berkeley, CA.

SPONS AGENCY California Business Roundtable.

PUB DATE 88

NOTE 295p.

PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC12 Plus Postage.

DESCRIPTORS *Accountability; Community Role; *Educational Change; Educational Technology; Elementary Schools; Elementary Secondary Education; *Instructional Improvement; Parent Participation; Preschool Education; Public Schools; *School Business Relationship; School District Autonomy; Secondary Schools; *Second Language Programs; *Teacher Effectiveness; Teacher Recruitment

IDENTIFIERS *California; Community Based Education

ABSTRACT

This report presents recommendations to the chief executive officers (CEOs) of over 90 of California's major corporations to strengthen and redesign the state's public elementary and secondary schools. The recommendations build on the current system and on reforms already underway. Although the recommendations are fairly comprehensive, they do not cover some areas that need major reform, such as financing public education, the construction of new school facilities, collective bargaining, business-education partnerships, or social services outside the educational system. The proposals are based on a combination of ideas from effective schools now in operation, and from interviews with educators, political leaders, legislative members and staff, community leaders, and concerned citizens. Summary recommendations, presented to stimulate discussion, include the following: (1) expand and focus schooling; (2) establish accountability based on performance and choice; (3) establish school autonomy, and empower parents, teachers, and principals; (4) modernize instruction; (5) strengthen the teaching profession; and (6) capitalize on diversity. Statistical data are included in six graphs and four tables. A 35-page bibliography is also included. (FMW)

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RESTRUCTURING CALIFORNIA EDUCATION

A Design for Public Education in the Twenty-First Century

**Recommendations
to the
California Business Roundtable**

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RESTRUCTURING CALIFORNIA EDUCATION

A Design for Public Education in the Twenty-First Century

Recommendations
to the
California Business Roundtable

R/112-2

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PREFACE

The California Business Roundtable, an organization of the Chief Executive Officers (CEOs) of over ninety of California's major corporations, is deeply concerned about elementary and secondary education. The Roundtable believes that the state's future rests on the vitality of its public education system.

In 1983, Roundtable CEOs worked with the reform movement that resulted in California's major education bill, SB-813. Since then, student test scores have shown some improvement, standards have been raised, and morale in the schools appears to be stronger. This progress shows that educators can respond positively to support and to clear signals for change.

The Roundtable expects the passage to the 21st Century to be challenging, a time of both opportunities and difficulties. As our country shifts to the information age and global competition, the K-12 education system will be confronted with even greater social demands and technological change. The CEOs are committed to working with educators to develop an outstanding education system to meet these challenges. They funded this project to recommend how this goal could be achieved.

The proposals presented here are the product of a six-month process in which Berman, Weiler Associates (BW) met with educators, political leaders, legislative members and staff, community leaders, and citizens concerned with education. Using ideas gleaned from these discussions plus concrete examples of effective practices throughout the country and the world, BW formulated this report's recommendations.

The recommendations propose bold but practical steps to strengthen and redesign public education. They build on strengths in the current system and on steps now underway to improve California education. Taken together, they represent a vision of a new education system geared to the needs of the 21st Century.

The recommendations are comprehensive, though they do not cover some areas in need of major reform (for example, the financing of public education, the construction of new school facilities, issues of collective bargaining, business-education partnerships, and social services outside of the education system). Subsequent volumes in this series may treat these and other topics.

The Roundtable is publishing this report now to stimulate discussion and serve as one basis for Californians to agree on an agenda for change. The CEOs plan to solicit responses to the ideas presented here, meet with concerned groups throughout the state, and contribute to the formulation of governmental and non-governmental actions for implementing needed reform.

The separately published Appendix to this report provides details on the costs of the recommendations and their implementation, and presents plans for phasing in the proposals over a ten-year transition period. Another volume, Restructuring California Education: Summary, provides a concise version of this report.

ACKNOWLEDGEMENTS

This study benefitted greatly from the help and advice of public officials, educators, parents, and concerned citizens throughout California, as well as scholars in California and the nation. The Superintendent of Public Instruction and numerous staff members of California's State Department of Education shared their plans for reform, provided data, and cooperated fully with our efforts. Similarly, the Governor's Office (Education), executive agency staff, and legislative staff from both houses and both sides of the aisle contributed ideas and commented candidly on our analysis.

The study also convened a dozen panels and focus-group discussions on such topics as accountability, choice, governance, language acquisition, technology, and minority issues. The panel sessions were provocative, often covering controversial material. We learned much from these sessions and wish to thank each panelist for thoughtful comments. We particularly are grateful to the teachers, principals, superintendents, board members, county officials, and parents who served on panels or otherwise gave of their valuable time to participate in discussions with our staff. From visiting schools, we know how limited that time really is.

We also wish to thank various organized educational groups across California. Officials and staff from these groups care deeply about the public school system and have been working hard on plans to improve education. They freely shared their views with us, and engaged in open discussions that helped shape this report.

Finally, the study's sponsors, the CEOs of the California Business Roundtable, demonstrated once again how committed they are to helping education. CEOs and executives from these large corporations listened patiently to long presentations and read lengthy documents so that they could take informed positions on a public issue that they believe greatly affects California businesses and the quality of life of all Californians.

While it is not possible to list the hundreds of citizens from all over California and the nation who participated in some way in this study, we particularly wish to acknowledge the contribution made by the following people as panelists, discussants, reviewers of our draft materials, and providers of information and advice. The appearance of someone's name on this list does not imply endorsement or support of the study's conclusions; responsibility for the analysis and recommendations is ours alone.

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SUMMARY OF RECOMMENDATIONS

1. Expand and Focus Schooling

All children ages 4 to 6 should have the opportunity for pre- and early schooling appropriate to their development before beginning formal academic course work at about age 7. Elementary and secondary education should concentrate on the core subjects needed for full and productive citizenship, and students should be expected to master the core by age 16. After mastery, all students should have the choice, from many options, of further education and training tailored to their initial career aspirations.

2. Establish Accountability Based on Performance and Choice

Governance should be shifted toward a system of accountability based on local control and parental choice. Rather than prescribing the educational process, the state should set performance goals for the system, measure how well schools are meeting these goals, institute ways to hold schools accountable for performance, and require and enable districts and schools to provide parent choice. This would free educators to design educational programs suited to their students.

3. Establish School Autonomy, and Empower Parents, Teachers, and Principals

Schools should have autonomy to develop educational programs suited to the needs of their communities. Community members and parents should be given the authority to oversee school operations, and teachers should participate in school management and work in teams.

4. Modernize Instruction

Using state subsidized Institutes of School Development, teachers and administrators should learn, develop, and implement effective instructional techniques and create more flexible learning environments that make use of modern technologies.

5. Strengthen the Teaching Profession

The teaching profession should be strengthened by establishing a multi-tiered system of teaching, upgrading entry standards, instituting internship prior to tenure, establishing requirements for maintaining high standards, and raising teacher salaries.

6. Capitalize on Diversity

California should establish policies for assuring that non-English speaking students fully acquire English, and that English speakers learn a second language beginning in early childhood. A teacher shortage policy should also be established to meet California's growing need for quality teachers in critical areas and from various ethnic groups.

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THE NEED FOR RESTRUCTURING

THE CONDITION OF CALIFORNIA EDUCATION

California Today

The passage of major education reform legislation (SB 813) in 1983 marked a watershed: California's K-12 system was in crisis, and the bill sent a clear message that standards must be raised and quality education reestablished. Since then, K-12 funding has increased $8.3 billion, funding per student has increased approximately 37 percent, and a $4 to $5 billion school construction package has been approved.[1] Declines in student test scores also have been halted, some test results show slight gains, the quality of curriculum used in schools across the state seems to be improving, more students are enrolling in more difficult courses, and the morale of teachers appears strengthened (California Assessment Program, 1986; State Department of Education, Performance Report for California Schools, 1987; Policy Analysis for California Education, 1988).

Despite these real improvements, friends and critics of the current system agree that California education continues to have severe problems. At least one of three students drop out of the public schools, making California 44th in the nation in graduation rates (The Achievement Council, 1988). For the last seven years, roughly 100,000 students have dropped out per year -- a total of 700,000 adult dropouts (Assembly Office of Research, 1985). Though more than 35 percent of dropouts ultimately obtain some additional education, many add to the ranks of the unemployed and the virtually unemployable (Assembly Office of Research, 1985; Minicucci, 1986). Long after leaving school, some dropouts contribute to costly social problems, such as the pregnant teenager who drops out of high school and goes on welfare or the chronic drug user who commits burglaries to support his drug habit. Society continues to lose out as hundreds of thousands of dropouts erode the literacy level of the adult population and reduce the productivity of the workforce.

Some statistics illustrate the magnitude of the problem:

- 1985 unemployment rate for 16-24 year old high school graduates -- 10 percent; for 16-24 year old dropouts -- 25 percent (Hahn and Danzberger, 1987).
- 1985 unemployment rate for female high school graduates -- 11 percent; for female dropouts -- 30 percent (Hahn and Danzberger, 1987).
- Odds of a teenage male with poor basic skills fathering a child, compared to all teenage males -- 3 to 1; odds of a teenage female with poor basic skills having a child, compared to all teenage females -- 5 to 1 (Children's Defense Fund, 1988).
- Percentage of families headed by female dropouts that live in poverty -- 49 percent (Earle and Roach, 1987).

---

[1] The 1988-89 Governor's budget proposes a $1.7 billion increase in K-12 spending, the largest single increase in state support for the schools. The increase in per-pupil expenditures adjusting for inflation is about seven percent (Governor's Proposed Budget, 1988-89).

- Number of school-age mothers in California -- 157,000 (Policy Analysis for California Education, 1988).
- Average time on welfare for a teenage mother who drops out to have a baby -- 10 years (Assembly Office of Research, 1985).
- Service costs to local government (criminal justice, employment, welfare, health) in the Los Angeles area attributed to dropouts in 1985 -- $488 million (Catterall, 1985).
- Projected total national earnings loss to society for the high school class of 1981 due to dropping out of school -- $228 billion; approximate lost tax revenues -- $68.4 billion (Catterall, 1985).

Dropout statistics tell only part of the story. Unfortunately, the difference in learning between dropouts and many high school graduates may be negligible. Substantial numbers of California's high school graduates are functionally illiterate. Military services report significant failure rates on entry tests among high school graduates seeking to enlist in the armed services. Many employers complain about candidates for entry level positions who cannot understand or complete employment application forms, and businesses have increasingly turned to providing training in basic skills to compensate for the limited supply of employees who can read, write, calculate and comprehend simple instructions.[2] California may now have 5 million functionally illiterate adults, and this total undoubtedly will grow rapidly.[3]

Dropouts and illiteracy are visible problems, and, therefore, provide dramatic testimony of the education system's profound inability to cope with almost fifty percent of its students. What of the other half?

Seventy-five percent of entering community college students read below the twelfth grade level, 50 percent of community college English and mathematics courses are remedial, and many CSU and UC entering students learn they must take remedial work. Though their learning deficiencies do not involve rudimentary literacy, their education is seriously limited. Students in both the middle and high achievement ranges on standardized tests (which primarily test rudimentary basic skills) have trouble with the so-called higher order cognitive skills -- clear writing, two-step calculations, critical thinking, and problem-solving. And it is precisely these higher order skills that are needed for a full and productive life in our increasingly complex society.[4]

---

[2] About 75 percent of the largest corporations nationally offer or require remedial basic education to their employees (Center for Public Resources, 1983, as cited in Lee, 1986); about 20 per cent of all organizations with 50 or more employees provide remedial training in basic skills (Lee, 1987). A conservative estimate of the cost of basic skills training is $1.2 billion dollars annually (based on data from the American Society for Training and Development and Eurich, 1985).

[3] See Johnson, 1987. Nationally, the Census Bureau estimates that 27 million adults cannot read, that another 30 million are functionally illiterate, and that functionally illiterates could comprise half the population by the turn of the century. It has been conservatively estimated that the cost of functionally illiteracy to business due to lost productivity is over $6 billion dollars annually (Torrence and Torrence, 1987).

[4] See Ravich and Finn, 1987; Hirsch, 1987.

Without denigrating the notable progress since SB 813, the stakes in the future are too high to be other than candid about the current product of California education: California now has an educationally-disadvantaged economic underclass, together with many citizens and members of the labor force who do not possess the critical reasoning, communication, and computation skills needed for active citizenship and participation in a competitive economy. This educational product is unacceptable. Students in today's schools must be prepared for tomorrow's challenges. They need to learn more, learn in-depth, and learn how to learn.

California Tomorrow?

In light of these current problems, a number of demographic, employment and economic trends are deeply disturbing.

Enrollment in the K-12 system is projected to increase a phenomenal 142,000 students per year over the next ten years. It is hard to see how the current system can cope with this thirty-seven percent increase to six million students before the turn of the century. If the dropout rate remains the same, well over a million students will have left school before graduation, and three-quarters of a million additional adults graduating from the public schools will be barely literate. But the number of dropouts and functional illiterates, as well as students lacking higher order skills, may well increase over the next decade for two reasons:

- **Serious Teacher Shortage**. Assuming that California's student to teacher ratio remains the same, about 150,000 new teachers will be required over the next ten years. There are serious shortages of qualified teachers now.[5] Where will the needed teachers come from in the future, particularly if reforms to upgrade the quality of the teaching profession are enacted?

- **More Minorities**. Eighty percent of newly entering students in 1986-87 were Hispanic or Asian, and prior to 1990 the majority of students will be from racial and ethnic minorities. Dropout rates are currently over forty percent for Black and Hispanic students, twenty-seven percent for whites, and seventeen percent for Asians.[6] The proportion of families below the poverty level also is increasing in the state, and the number of youths from single-parent households that are below the poverty level is expected to grow. Dropouts are more likely to come from poor, single parent households.[7] Judging from the past record of the public schools in educating poor and minority students, more and more students will be "at-risk".[8]

---

[5] This year the shortfall in the number of fully qualified teachers is estimated to be about 15,000. Approximately 14,000 not fully qualified teachers were hired on an emergency basis to meet the demand.

[6] The categorization of all Asians into one grouping can be extremely misleading. The Asian category consists of people from distinct races and different linguistic and cultural backgrounds. Moreover, the relatively low dropout rate for "Asians" obscures the fact that an increasing number are refugees and new immigrants whose dropout rate and other problems are substantial.

This unprecedented enrollment growth will also place a severe financial burden on the public school system. If expenditures per student keeps pace with inflation, funding for schools will double to over $40 billion in ten years.[9] This total does not include about $10 billion to build 1500 new schools and refurbish existing plants (assuming schooling operates as currently configured). Where will these funds come from?

At the same time schools must contend with these relentless demographic realities, the economy will create new opportunities, and simultaneously pose extraordinary challenges for education. The shift in this country and around the world toward an information society means that more and more jobs will require higher levels of education. Many economists project an increase both in the percentage of new jobs created in service industries, and in the educational level required for service jobs and other employment areas. Higher order skills will be needed to fill these opportunities. And the overall rate of job creation is likely to increase faster than the rate of preparation of young people with the requisite skill levels.[10]

Thus, ironically, the California economy may produce a surplus of challenging jobs that could potentially break the cycle of poverty and underemployment at the same time as the school system is failing to prepare young people adequately to fill these jobs.

Another dimension of this issue deserves emphasis: California businesses and industries are engaged in national and global competition. Private and public sector leaders are united in the belief that an outstanding education system will be key to our competitive position in the world.

California education has reached an historic turning point. The public school system is not on the verge of collapse. On the contrary, it has shown some improvements. But will the current approaches to improving the system enable public education to keep pace with future needs at a price that society can afford? If not, what should be done?

---

[7] The 1980 U.S. Census reported that approximately 425,000 California teenagers ages 12 to 17 lived in homes headed by a single parent -- this represented twenty-two percent of the teenagers in the state. Fifty-one percent of families with children below the poverty level were also single parent homes. In 1986, over 1.7 million children, or about one-fourth of all California children, were in poverty.

[8] The gap in achievement between White and Black or Hispanic students is three grades levels by grade 12 (Achievement Council, 1988).

[9] This level of expenditure may not be legally possible, because of the Gann Limit, even if the public were willing to spend these funds.

[10] The projected estimate of new jobs created per year until 1995 is 320,000. Jobs openings due to separation from the labor force are expected to be 365,000 per year (conversation with Mary Rippey, California Employment Development Department, 1988). Also see information from the Center for the Continuing Study of the California Economy, 1988.

FINE TUNING VS. STRUCTURAL CHANGE

The Improvement Strategy

The traditional approach to coping with the issues raised above is to initiate individual reforms intended to solve specific problems. Each reform in this improvement strategy aims to bolster the current system, fine-tune elements which have gone wrong, or correct apparent deficiencies. This approach has some merit, particularly in the short-run. But its longer run implications must be clearly understood.

The improvement strategy depends heavily on putting more money into the existing system. The financial implications of relying on this approach are staggering. The budget for education will double in ten years if the current growth in the level of spending per student is maintained, or almost triple if the level is increased to match the expenditures per pupil in New York (as some have advocated).[11]

Consider other proposals to fix the current system. If the improvement strategy of reducing class size is enacted, it will eventually cost about $1.2 billion per year, plus an undetermined cost to maintain the current level of teaching aides and provide new classrooms. SB 813 reforms are producing some improvements, but the full implementation of SB 813 reforms plus its follow-ons may cost an additional $2 billion. The California Commission on the Teaching Profession has proposed improvement strategies for strengthening the teaching profession which could cost about $1 billion over five years (Commons, et al., 1985).

What would be the result of these large increases? The bulk of additional funds would pay for more students with no additional services or better education. Running to stay in place will not improve matters; indeed, overall student performance might decline because a greater percentage of poor, minority, and limited English speaking students -- groups that historically have been poorly served by the education system -- would be enrolled.

The proposed reduction in average class size, from 28 to 23, might help some, though available evidence does not predict any dramatic increase in student learning for such a small change in the student-teacher ratio.[12] The efforts to strengthen the teaching profession may be wise and necessary, but they are hardly sufficient to stimulate a major advance in student performance because new teachers would find themselves locked into the same unproductive system. Curriculum upgrading and increased student standards are long overdue, and therefore should produce a short-term marginal gain as California standards come up to par with those in other states; however, this gain can be expected to top out in a few years. The combined effect of all these improvement strategies would probably be a small net percentage gain in student performance.

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[11] The average annual increase in California's expenditures per pupil has been about 3 percent since the passage of SB 813 in 1983 (Legislative Analyst, 1987). Expenditures per pupil in 1987-88 were about $4,600 in California and $6,550 in New York.

[12] Besides being expensive and of doubtful efficacy, reducing class sizes would generate an almost twenty percent increase in the demand for teachers, exacerbating current and projected teacher shortages.

At best, then, an improvement strategy might increase student performance to a level at or slightly above the national average, or the average of comparable Eastern industrial states. However, this level is simply too low to meet the challenges of the future. California may no longer have an education system in constant crisis, but it will have a mediocre system in which students will perform far below their potential and increasingly below levels attained in other countries. And there will continue to be a large, permanently underemployed, largely illiterate underclass dependent on welfare and crime, along with many entry-level employees in need of costly remedial training. The financial and social burden to society and business of continuing this ineffectual approach to education has never been fully calculated.

A New Strategy

Improvement strategies start from a fundamentally wrong premise: they assume that adding more money, increasing standards for students and teachers, and achieving better central direction of the current system will result in marked improvements in student learning. The evidence of twenty years of fine-tuning the system contradicts this premise, and suggests instead that the current system has inherent limitations preventing educators from helping all students learn to their full potential. The problem is the current education system itself.

An alternative strategy is to reexamine the basic structure of public education, and remove impediments to developing a truly outstanding system. This strategy starts from two premises:

- California education must move to a new plateau of excellence and cost-effectiveness. Marginal improvements in student test scores and minor efficiencies will not suffice.
- Ineffective and inefficient practices are built into the operation, structure, and culture of all aspects of the current K-12 system. These barriers to high performance and cost-effectiveness must be removed, and a new education system formed.

Barriers to effective education in today's system can be grouped into six areas:

1. Ineffective Structure of Schooling

Mission of Public Schooling Lacks Focus. From elementary grades through community colleges, schools are asked to do both too much and too little. Too many courses are offered, yet the curriculum does not go deep enough. Higher standards have been translated to mean college preparation, and college preparation has come to mean specialized courses rather than higher order skills and breadth of knowledge.

Organization of Schooling Limits Student Achievement. Schooling is organized in ways that automatically limits the achievement of most students. In comprehensive secondary schools, pupils are generally separated into academic and non-academic tracks, with most students from poor, non-English speaking, and minority backgrounds placed in lower tracks with watered-down curricula and lower standards. Research shows that both high- and low-achievers learn less under tracking and that most dropouts occur from the lower track in the last two years of high school. Drop-outs are unlikely to be substantially reduced unless tracking is eliminated.

Many Poor Children Start Behind, Take Damaging Remedial Courses, Never Catch Up. Schooling typically follows a remediation pattern for "lower-achieving" students that has not been effective; instead it stigmatizes students and gives them the clear message that they are not expected to succeed. The labeling and separation of children into ability groups starts early, and is often the result of children failing kindergarten in part because their families did not have the resources to allow them attend preschool. These students are likely to be assigned to remediation throughout their schooling.

Student Incentives to Learn are Limited. Students are promoted on the basis of seat-time, rather than on objective measures of achievement. They are not challenged to develop reasoning skills, lack adequate career counseling, and are not free to develop their special talents.

Junior High Schools Have Been Ineffective. Junior high schools are ill-suited to the development of their students. The gaps in learning between male and female, white and Black or Hispanic, and high- and low-achievers grow larger in junior high school.

2. Lack of Accountability and Choice

Schools are Over-Controlled by the State and District. There has been an unintentional drift toward the centralization of education in California. State laws and models implicitly prescribe how education should be delivered -- for example, what the curriculum should be, how many and what types of courses each student should take, and how many minutes courses, the school day, week, and year should have. These prescriptions stifle the ability of local schools to adapt their educational methods to the particular needs of students. Some districts exacerbate this situation and contribute to excessive bureaucratic controls, resulting in unnecessary uniformity in schooling.

Inadequate Measurement Hampers Accountability. Despite many testing programs, current measurements of student performance provide inadequate information about how much essential knowledge and reasoning skills students have mastered. Schools cannot be held accountable for results until performance can be measured in fair, comparable, and understandable ways.

Lack of Parental Choice Limits Local Accountability. Districts decide which public school each student may attend. It has been reported that many parents "lie, cheat, and do whatever they can" to get their children into good schools. Other parents send their children to private schools. Some parents, particularly in poor areas, believe their children must settle for mediocre schooling in chronically failing systems because they have no other choice.

3. Inadequate School Autonomy

School Management Structure Needs Strengthening. The organization of schools requires the principal to resolve most problems; leadership at lower levels is discouraged by rigid role distinctions. Because principals are often preoccupied with day-to-day problems, they rarely have time (and are rarely trained) for planning, and they generally lack the authority to innovate.

Incentives for Efficiency and Innovation are Inadequate. Schools have little discretionary budget authority, and their management choices are largely proscribed by district policy. Districts are restricted from raising their own funding, and have little economic or political incentive to be efficient.

Some Districts Too Controlling. Effective districts help develop effective and efficient schools, but central staff in many districts exercise considerable authority that both creates excessive paperwork and limits discretion at the school level.

Parent and Community Involvement Limited. A breakthrough in student learning is unlikely to come about without more parent involvement in schools and their children's schooling. Yet most parents have little say about how their schools work.

Teachers Not Participating in Decisionmaking. Teachers also lack authority, particularly on many decisions affecting their classrooms. Effective schools have strong leadership from the principal, and a team approach to management.

Teachers Isolated. Teachers are greatly overburdened, and cannot spend enough time with each student. Teachers are generally isolated from one another, and do not use team approaches that have been proven effective. Good schools have people working together.

4. Instruction Outmoded

Current Expectations Too Low. Most instruction implicitly assumes that only fifteen or twenty percent of children can master the higher level of literacy needed in the future. This conclusion is unwarranted and unacceptable. Research has identified effective instructional strategies (especially mastery and cooperative learning) that enable *most* students to achieve at high levels.

Breakthrough Requires Training. Teachers and administrators currently lack ongoing and practitioner-based training in the most effective instructional strategies.

Technology, Though Critical, Remains a Side Show. The implementation of effective instructional strategies may depend on computer-based technology. Most schools neither have the resources nor the incentives to restructure their operations so that technology can be used productively.

Rigid Educational Programs Prevent Effective Instruction. School programs work within a uniform course-load formula and schedule that originated at the turn of the 20th Century. These practices, now retained for administrative convenience, prevent the adoption of more productive instructional methods. The schedules are rigid and uniform within and across districts, and limit the flexibility of principals and teachers to design effective and efficient educational programs.

5. Teaching Profession Needs Further Strengthening

Teacher Preparation Programs Are Inadequate. Many teacher preparation programs do not adequately train teachers in new instructional techniques and the use of modern technologies.

Low Standards for Teaching Credentials. Teaching credentials are easy to obtain, and are based on courses taken rather than measures of knowledge, skill, and ability to teach.

Teacher Evaluation is Inadequate, Tenure Almost Automatic, and Staff Development Uneven. Serious evaluation of teacher performance is seldom done, and advancement to tenure occurs quickly and routinely. Post-tenure evaluation is not linked to staff development.

Salaries and Working Conditions Cause Many Teachers to Leave the Profession. Teacher salaries are rigidly determined and are too low, especially for outstanding teachers with options outside of teaching. Teachers in many schools do not participate in decisions that affect them and the educational program.

6. System Not Geared to Diversity

High Percentage of Non-English Speaking Children. California has a difficult challenge in meeting the needs of the high percentage of students, particularly entering students, whose family language is not English. About twenty- five percent of California students have limited ability to speak, comprehend, or write English. They need to learn English as quickly as possible so they can succeed in a competitive environment. Under the present system, however, such children are quite likely to fall behind, and are at great risk of dropping out and having limited employment opportunities.

Diversity Not Exploited. The place that California holds now and could hold in the future as a main trading center on the Pacific Rim and with Latin America presents a great opportunity. The shift to a global economy means that more people will benefit from learning the Pacific languages and Spanish.

Teacher Shortage Barrier to Goals of the Future. The supply of trained teachers is a major barrier to coping with the challenge of limited English speaking children and realizing the opportunity for foreign language training for English-speaking students. Shortages of teachers also are likely to occur in non-language areas such as math and science. Moreover, teachers from nearly all ethnic minority groups are under-represented in the present system; the education system of the future should more closely represent the diversity of the student population.

These problems are systemic, not the fault of teachers, administrators, or public officials. The conclusion is inescapable: the system as a whole must gradually be changed. Conditions must be fundamentally altered if California is to develop a more productive, equitable, and cost-effective system of public education.

This report presents recommendations aimed at removing barriers to effective education for all students. The main body is devoted to offering specific proposals in each of the six problem areas listed above. After presenting the recommendations, the concluding section of this document discusses the transition from the present to a new public education system for the 21st Century. Before introducing the recommendations, the next section describes the vision for a new education system that underlies this report's proposals.

THE VISION

If implemented, the recommendations made in this report would inaugurate a new era for public education. Tomorrow's system would give schools more autonomy and make performance the driving force for improvement. Parent, student, and teacher choice and accountability would accompany greater local autonomy, stimulating excellence in all schools and for all students.

Students would be expected to learn much more and learn in depth. They would leave the education system with the core skills, knowledge, and attitudes needed for a full and productive life. They would emerge with high self-esteem and confidence that they can succeed.

Students who can advance quickly would be given the opportunity to do so. Pupils from poor and minority families would be treated the same as all other students. Rather than being assigned to a cycle of remediation, failure, and dropping out, they would be held to high expectations. Along with all other children, they would receive the support they need to live up to their potential. Non-English speaking children would be expected to master English, and be given appropriate early training to allow them to do so; English-speaking children would acquire a second language, and their language training would start early.

Students also would be more responsible for their education. They would be promoted when they master material, not simply because they have attended the required classes. Once having mastered core material, they would have the opportunity to select education that will advance their career ambitions.

Parents would play a vital role in their children's education. They would have the right to choose schooling, and exercise influence over schools. Parents would be given the information and authority to hold schools accountable for delivering high quality education. And they would be expected to contribute to their schools and their children's learning starting at the very outset of schooling.

Teachers would be able to create and choose educational programs that fit their students' needs and their own styles. They would be responsible for employing new, more effective instructional methods with the help of advanced technology. They would be encouraged and expected to evolve more flexible concepts of how instruction is delivered.

New teachers would be better trained, existing teachers would receive staff development as an integral part of their jobs, and all teachers would have the time to develop their skills and creativity. Teachers would be treated as professionals, paid more, and expected to pass exacting evaluations to demonstrate their professionalism.

But not all teachers would have the same responsibilities. Some would participate in school supervision and decisionmaking, and hold more responsibility for planning and directing the

consultation. Movement to second grade would depend on the readiness of the child, not on the calendar.

Primary school programs would operate on a year-round basis and entry into primary school would be allowed at any time during the year. Districts with year-round programs would facilitate children moving from the primary school to second grade at various points during the year. Other districts would be encouraged to allow entry to second grade at more than one point during the year.

Group size and student to staff ratios in primary school programs would correspond to NAEYC guidelines and not exceed 20 children in a group with two adults.

b. Providers would be required to provide early language training for limited English, as well as English-speaking children.

Language development for children whose primary language is other than English would begin in the primary school at age four (also see Recommendation 6). Primary school activities would convey respect for the primary language and culture of all children.

The goal of language development in the primary school would be to build common language proficiency -- the underpinning of all language skills in both English and the primary language. Children who develop common language proficiency are more likely to become proficient in both languages. Staff in the primary school would foster natural language development through meaningful social interaction with the child. Instruction in the primary school would differentiate between learning in the primary language and learning in English. Both types of learning would be supported.

Children would be able to form both English language relationships and primary language relationships with staff in the primary school. The combination of the two relationships are recommended for young children as opposed to mixing the two languages, structured language programs, or simultaneous translations.

c. Providers would be required to integrate children with special needs into all programs.

To the degree possible, children with special needs would be integrated into the primary school both socially and physically. Programs would avoid isolating children with special needs in segregated groups and pulling them out of the regular classroom so often that they no longer feel a part of the group. A sense of continuity would be maintained so if there is a need for separate instruction, the staff in charge would work to make sure there is consistency and coordination for the child.

efforts of others. Paraprofessional assistant teachers would be integrated into schools to aid instruction and to make it more efficient. Teachers would work in collaborative teams rather than continue their present isolation. Together they would be responsible for the learning of each student.

Schools and Principals would have the budgetary and legal authority to develop effective, efficient, and flexible programs. They would be able to buy the services they need to improve their productivity and the quality of learning.

Small schools would be created within larger schools. Instead of today's largely uniform institutions, each school and school-within-a-school would have a distinctive educational philosophy and identity. The flavor and spirit of the typical public school would be comparable to the very best private or public schools.

The principal would operate in partnership with teachers to implement a shared vision for the school, and they would make decisions collegially.

Most schools would operate on a year-long schedule, and create course schedules that make efficient use of staff and student time. Some classes might be large, given only twice a week, and employ long-distance learning technologies; others classes might be small and intensively focused; still others might be arranged for individual learning.

This freedom at the school site would be balanced by performance-based measures to allow parents, districts, and, as the last resort, the state to hold schools accountable for productive operations and high levels of student learning.

Districts would, as now, have the responsibility to monitor and facilitate school operations. This essential role would be strengthened because districts would reduce their current role in directing schools' educational programs. Even more so than today, districts would assist parents in holding schools accountable, and in providing quality control of school programs.

Districts would be suppliers of services to schools in competition with other suppliers. They (and schools) would form consortia with other districts, post-secondary institutions, and private companies to facilitate research, development, and training of teachers and administrators in innovative instructional methods and technologies.

Districts would continue to hire tenured and classified employees, and conduct negotiations over pay and working conditions. But districts would not have the final say about school staff assignments; this would be a school-level prerogative. Moreover, schools would be able to hire paraprofessional assistant teachers, and other non-tenured or classified staff.

The State (that is, the legislature, the State Board of Education, and the State Department of Education) would be concerned with performance, not with the education process. It would set goals for education; develop means for measuring how well schools meet these goals; disseminate information about their performance; take a proactive role in stimulating research, development, and training; and provide an adequate level of financing.

The state would work with teachers to set standards for the teaching profession, and assure quality control. The state also would intervene in failing schools, and help schools to develop and become outstanding or not permit them to continue.

THE RECOMMENDATIONS

RECOMMENDATION 1

EXPAND AND FOCUS SCHOOLING

> *Part of what is at risk is the promise first made on this continent: All, regardless of race, or class, or economic status, are entitled to a fair chance and to tools for developing their individual powers of mind and spirit to the utmost.*
>
> A Nation at Risk

In response to outside forces, educational programs have vacillated between calls for high academic standards and attempts to have mass education, often without adequate attention to standards. As a consequence of this tugging and pulling from forces in society, public education has become unfocused. In the present structure of schooling, there is an inherent tension between college and job preparation -- and between excellence and equity.

Rather than treating excellence as the quality of instruction, it is too often translated into more requirements for students to take specialized courses of the type that until recently had been taught only in college. Depth and comprehensiveness of learning has been sacrificed for the accumulation of highly specialized but limited facts.

At the same time, the public school system implicitly treats the majority of students from poor, non-English speaking, and minority backgrounds as unable to follow an academic path. Far too many such children are relegated to a lower status where to satisfy equity they take courses that sound the same as "academic" courses but are actually inferior.

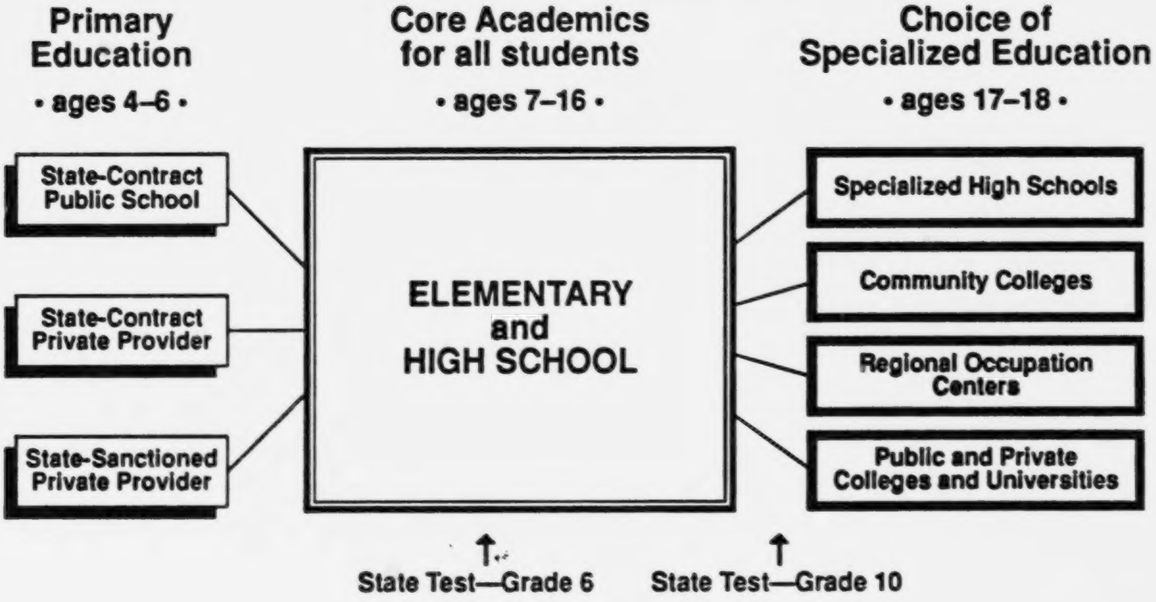
The identification of some children as "lower ability" begins at the moment students enter formal schooling. An extraordinary large number of California children fail kindergarten, in part because their families do not have the resources to provide preschooling. They often are labelled as "underachievers" or "learning disabled" and separated from regular classes to receive remedial work. Thereafter, "lower ability" children are enmeshed in an unbreakable cycle of remediation.

The fundamental mission of the public schools is to provide all students with the high quality education they will need to be full and productive citizens. The present structure of the schools does not enable educators to meet this goal.

Figure 1 illustrates a reorganization of schooling that would enable California education to attain *both* excellence and equity for all students. The public schools are presently aligned into grades kindergarten through twelve, with most systems divided into elementary school from K - 6, junior high or middle school from approximately 7 - 8 or 7 - 9, and senior high school from 9 - 12. The proposed system would consist of four groupings:

Figure 1

NEW STRUCTURE


Primary Education
• ages 4–6 •
Core Academics for all students
• ages 7–16 •
Choice of Specialized Education
• ages 17–18 •
State-Contract Public School
State-Contract Private Provider
State-Sanctioned Private Provider
ELEMENTARY and HIGH SCHOOL
Specialized High Schools
Community Colleges
Regional Occupation Centers
Public and Private Colleges and Universities
State Test—Grade 6
State Test—Grade 10

- primary school (from approximate ages 4 to 6)
- elementary school (from approximate ages 7 to 11)
- common high school (from approximate ages 12 to 16)
- specialized secondary schooling (from 17 to 18)

The remainder of this chapter discusses how this restructuring would work; why it could create a structure that holds the potential for students to learn at much higher levels; how it would drastically reduce dropouts; and what key policies would be needed to implement these proposals.

Specifically, this chapter presents the following recommendation:

> *All children ages 4 to 6 should have the opportunity for pre- and early schooling appropriate to their development before beginning formal academic course work at about age 7. Elementary and secondary education should concentrate on the core subjects needed for full and productive citizenship, and students should be expected to master the core by age 16. After mastery, all students should have the choice, from many options, of further education and training tailored to their initial career aspirations.*

1A: Establish primary schooling for all students (ages 4-6)

1B: Focus elementary and secondary education on core academics (ages 7-16)

1C: Institute a post-10 student option of specialized education (ages 17-18)

1A: ESTABLISH PRIMARY SCHOOLING FOR ALL STUDENTS

The state should institute a primary school program in which all children ages 4-6 have the opportunity for education and supplemental day-care appropriate to their development.

1. **Expand Schooling to Include Preschool.** All children of age 4 would have the opportunity for state-funded preschool and supplemental day-care.

2. **Consolidate Early Schooling to Fit Developmental Needs.** After a transition period, preschool, kindergarten, and first grade would be combined to form a primary school, which would be the schooling level prior to elementary school.

3. **Fund Mixed Public and Private System.** State-funded preschool and primary school would be provided by public or private schools, and parents would have a choice of providers.

4. **State Funds on Contract Basis.** To guarantee that public and private providers offered quality education and care, the state would award competitive contracts and specify conditions that public and private providers would have to meet to receive a state contract.

5. **All Providers Must Meet Same Requirements.** Providers would have to meet conditions that would include prohibitions of discrimination and sectarian teaching as well as regulations on the type of education expected, the qualifications of teachers, the services provided to children (such as day care, health and nutrition), and safety/health provisions.

A. The Need

California faces a situation in which the school-age population is expected to increase by more than 140,000 children per year during each of the next ten years. Most students entering California schools will be from minority groups, many of whom have a primary language other than English. In recent years, California schools have had little success with minority students -- the dropout rate for Hispanic children is estimated at 50 percent, and for Blacks only slightly lower.

The public schools' difficulty in providing an appropriate education for minority students begins early. Black and Hispanic students in the early grades are an average of six months behind white children, and then matters get progressively worse (by sixth grade the achievement gap has increased to one year, by eighth grade to two years, by grade 12 to three years).[1]

If California is to develop an outstanding education system, it must revamp the very beginning of the schooling process. We propose a dramatic initiative -- a primary education that would get at root causes of failure in schooling.

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[1] Achievement Council, 1988.

Currently, schooling is compulsory from age six (the first grade), and most children of age 5 attend kindergarten in public schools or equivalent private schooling. Because 70 percent of all California children under age six are from families either with two working parents or with only one parent resident, more and more children four years old or younger also attend private preschools. Such early schooling can be beneficial, though it can be harmful if improperly executed. Most children attending pre-school are from families who can afford the tuition and other costs of private pre-schools. In 1987, about 40 percent of all four-year-olds attended private preschools.

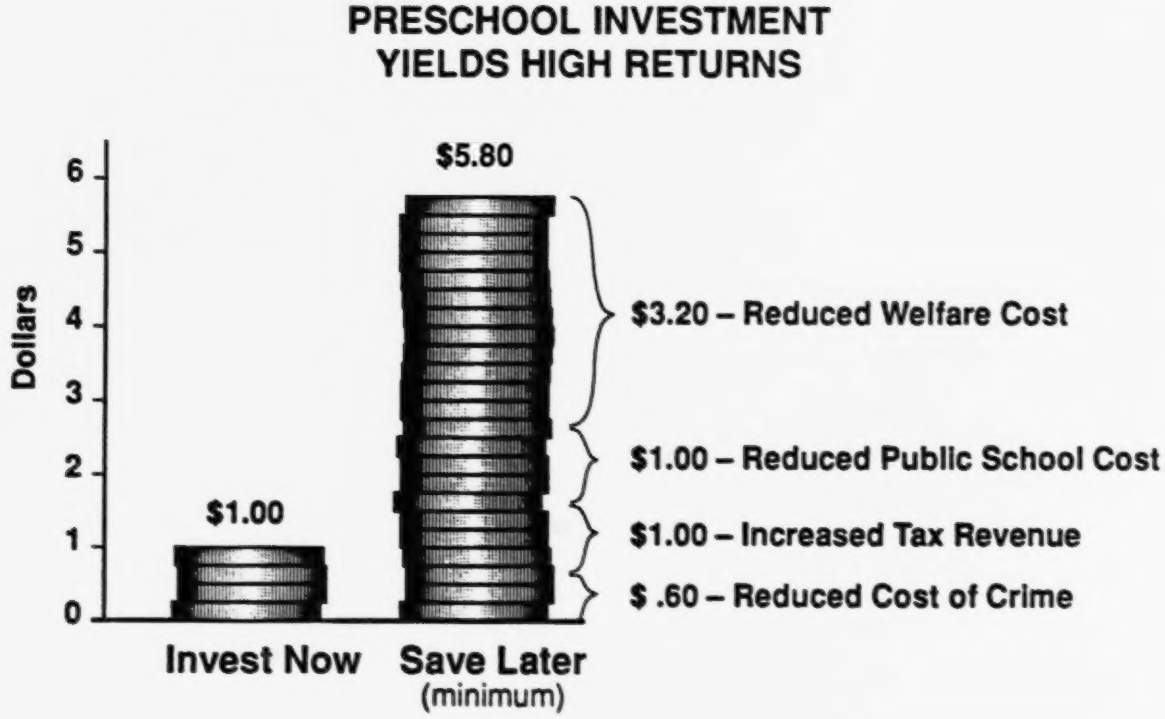
In addition, the state and federal government provide preschool opportunities for a limited number of low-income families in state-subsidized publicly and privately run preschool programs. Several separate preschool programs run by the state include 6.3 percent of all four-year-olds and the federally funded Head Start program enrolls an additional 5.5 percent of all four-year-olds. In 1987, about 25 percent of four-year-olds from poor families, or about 12 percent of all four-year-olds, were enrolled in such programs. In short, most four-year-olds from poor to low and low-middle income backgrounds do not attend preschool.

Thus California has a built-in inequity in preschooling. A large percentage of the children most in need of preschooling do not receive it, and therefore start kindergarten or first grade behind children who come from a middle-income background and attend private pre-school. It has been reported that large numbers of students in large urban school districts in California (primarily children from poor and ethnic or linguistic minority backgrounds) "fail" kindergarten --i.e., are held back. This inequitable beginning may contribute to the gap in learning that occurs in elementary school between children from different socio-economic backgrounds.

Yet the research evidence from Head Start and other preschool programs shows that preschooling can have an extremely high pay-off (Consortium for Longitudinal Studies, 1983). For example, for almost twenty years, researchers have kept track of a group of children who attended the Perry Preschool Program in Ypsilanti, Michigan and another group of children (the control group) who did not receive pre-schooling. The results for the Perry group -- higher achievement, employment, and attendance at postsecondary institutions, on the one hand; and less dropping out, drug abuse, welfare, and crime, on the other hand -- are remarkable, particularly because the only difference between the two groups was the preschool program. Using actual results from this program, **Figure 2** illustrates the potential long-run savings to society from an investment in preschooling: For every dollar invested, the return on investment has been $5.80 by the time the participants reach age 19. The projected benefits from the program, once the participants enter their more productive years, are estimated to be in the range of $7 to $8 for every dollar invested in preschool.

Despite the apparent benefits of early childhood education, a major state initiative in preschooling could be a serious mistake if it meant simply extending the current system of K-12 education downward one year. Kindergartens are becoming more academic, but the evidence is

Figure 2



Ypsilanti, Michigan 20-Year Study

that many poor children and children of color are failing or falling behind. Why should we expect an improvement by starting earlier? Indeed, inappropriate pre-schooling could do more harm than good.

The eighties have in fact experienced attempts to push academic training down to lower grades, kindergarten, and pre-school -- and the results are disturbing (Elkind, 1986). Scholars agree that all children go through similar developmental stages, though not at exactly the same ages (Breger, 1974). Children can only learn academically-oriented material (requiring cognitive development) when they are developmentally ready. The trend in the country toward early childhood academic achievement has produced two symptoms: early childhood burnout and misclassification of capable students. Some students who are prematurely encouraged -- or in some cases required -- to absorb academic material beyond their developmental stage show great progress for several years, but "burn-out" academically and emotionally in late elementary grades. They can become apathetic or bored with school, despite their promising beginning. And this malaise can negatively affect their motivation and orientation toward achievement in life (Katz, 1987).

The second problem concerns misclassifying children as academically slow when they are in fact developmentally at too early a stage to be ready for academics. An increasing number of children are held back in kindergarten because they are deemed not ready for first grade academics (despite the research evidence which shows that holding children back does not help them academically in later grades). The State Department of Education's School Readiness Task Force (1988) cites data that show that in 1981-82, the statewide retention rate was 4.4 percent -- with a range across school districts from 0 to 50 percent. The data also show that boys were more likely to be retained than girls and that children with a first language other than English were more likely to be retained than those with English as a first language. These early "failures" too often cause children to be placed into lower ability groups, which in the current system means that they are likely to wind up in categorically-funded remedial programs and placed in lower ability tracks throughout their time in the public school system. At we shall discuss, this is a recipe for failure, dropouts, and mediocrity.

In sum, the roots of low achievement and failure in school and later life are planted early. Children from poor or low to low-middle income background currently do not have access to appropriate early childhood education. Other children are being prematurely pushed to achieve academically, and still others are labelled falsely as failures. This situation should and can be reversed.

The next section presents details of this report's recommendation to give all students an early and equal start.

B. Design Details

1. **Expand Schooling to Include Preschool.** *All children of age 4 would have the opportunity for state-funded preschool and supplemental day-care.*

Under this proposal, the state would provide the opportunity for high quality preschool for all four-year-olds. Parents who wish to enroll their four-year-olds in a preschool program would be able to do so at no cost to the family. The programs would be entirely voluntary and would be coordinated with day care programs so that working parents can easily take advantage of the opportunities.

The preschool program would have two components -- learning activities for approximately one-half day and day care for the other half. The state would fully fund the portion of the primary school program that represents the learning activity portion of the primary school. For the optional day care portion of the day, the state would pay the full fee for children from low-income families and would set a sliding fee scale for other families who want to take advantage of the full day program.

2. **Consolidate Early Schooling to Fit Developmental Needs.** *After a transition period, preschool, kindergarten, and first grade would be combined to form a primary school, which would become the level of schooling prior to elementary school.*

This proposal would gradually consolidate preschool with kindergarten and first grade to make one coherent schooling unit (the primary school) for four-, five-, and six-year-olds. Curriculum and instruction for the primary school would be appropriate to each child's developmental period, and only in its final stages would the curriculum be directly preparatory for formal schooling. Children would leave the primary school at the appropriate point in their development and enter regular public school programs at the equivalent of today's second grade.

The transition of adding preschools and consolidating preschool, kindergarten, and first grade would be done over an eight year period. The first stage of transition would be to expand the current state system of mixed public-private providers of preschool for some poor children to all poor four-year-olds.

The second stage would be to have preschool available for all four-year-olds, regardless of their parent(s)' economic situation. At the same time, pilot projects would be used where necessary to develop appropriate models for consolidating the early school grades as a preliminary to implementing the primary schooling. Full implementation of the above proposal would take place as each of the steps have been successfully executed. See Part III for details on the transition from the current system.

3. **Fund Mixed Public and Private System.** *State-funded preschool and primary school would be provided by public or private schools, and parents would have a choice of providers.*

Unlike the situation in public elementary and secondary schools, pre- and primary schools would not have the authority to assign children to schools according to their residence. Parents would have be able to choose freely among competing pre- and primary schools. The mix of services, hours of operation, and program emphasis will vary from program to program. Parents would be able to choose the program that best meets their needs and those of their children.

The state would prohibit discriminatory entry practices for all state-funded providers. Further, it would prohibit the use of state funds for sectarian teaching or practices (see point 5 below). To further protect against discrimination, we propose that the current system of Resource and Referral Centers would be expanded to provide information and advice to parents who are choosing pre- and primary schools.[2] These centers already provide some services to parents and their role could be expanded to serve more parents and to provide a different mix of services. They would develop and provide valuable information to parents about the availability of programs and about which programs would be best for a particular child.

Expanded Resource and Referral Centers also would be used to help increase the supply of providers to meet the increased demand. The Centers currently provide limited services to providers by helping them meet local zoning, safety, and health regulations. In addition, they would provide information to providers about new state programs proposed here and facilitate their entry into the market.

This report recommends that the state provide financial assistance to primary school providers to meet the fiscal demands of starting a primary school program. The state would offer a limited number of loan guarantees for construction and renovation of space and help in obtaining use of public facilities would be offered to help increase the supply of providers. In addition, the state would assist providers establish a self-insurance pool to help offset the heavy insurance burden. See the separately published appendix on cost and transition for details on assumptions related to these and all other cost items referred to in this proposal.

4. **State Funds on Contract Basis.** *To guarantee that public and private providers offered quality education and care, the state would award competitive contracts and specify conditions that public and private providers would have to meet to receive a state contract.*

Using the existing contract mechanisms already in place in the State Department of Education's Child Development Division as a model, the state would establish a contracting process that allows both public and private providers to operate pre- and primary schools. Contracts would be awarded on a competitive basis and the contract would set out the services to be provided (see discussion under point 5 below).

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[2] There are 73 Resource and Referral Centers -- at least one in each of the 58 California counties. They currently serve the entire state. That system would be expanded to handle the larger demands for information services.

The state would set a maximum payment to contractors that would reflect differences in costs across the state. Parents would not be allowed to supplement the amount of the provider payment. Providers could be school districts operating programs in schools within the district or in outside facilities. In other cases, providers would be private not-for-profit organizations operating programs in underutilized school facilities or in non-school facilities. Public schools wanting to provide pre- and primary schooling would be permitted to contract out for these services to not-for-profit private providers.

5. **All Providers Must Meet Same Requirements.** *Providers would have to meet conditions that would include prohibitions of discrimination and sectarian teaching as well as regulations on the type of education expected, the qualifications of teachers, the services provided to children (such as day care, health and nutrition), and safety/health provisions.*

The contracting mechanism provides a way to specify regulations for all providers, which would be the same for both public and private providers. The main requirements are listed below:

a. **Primary school programs would be required to be appropriate to the development of the children they serve and would adhere to the guidelines and standards of the NAEYC for developmentally appropriate programs.**

Pre- and primary school programs would be developmentally appropriate as described in the National Association for the Education of Young Children guidelines (NAEYC, 1987). The programs would be in line with the developmental principles which stress activities that stimulate growth in all developmental areas: physical, social, emotional, and intellectual. Programs would be integrated across curriculum areas for all children in the primary school. They would focus on discovery and active exploration of the child's environment. The optional day care program for those families who need full work day coverage for their children would be developmentally appropriate as well.

Primary schools would be ungraded and children would be allowed to progress at their own rate. At the appropriate point in their development, children would move from the primary school to second grade.

Assessment of children would be based on information obtained from observations by teachers and parents, not on test scores. Developmental assessment of children's progress and achievement would be used to plan curriculum, communicate with parents, and evaluate the program's effectiveness. An individual child's progress would be compared to his or her previous performance.

No letter or numerical grades would be given during the primary school. Each child would be helped to understand and correct his errors. Children in the primary school are neither promoted nor do they fail. Children progress at different rates, developing competence as they move through the primary school. When a child is at the stage in his development when he is ready for academic work, he would move into the second grade. That determination would be made by the parents and the staff of the primary school, after

d. Staff in the primary school would be required to be trained in Early Childhood Education or Child Development.

The state would assure that primary school staff have college-level training in Early Childhood Education or Child Development and supervised experience with this age group. Those who are currently working in schools or centers that would become primary schools would be required to be trained in Early Childhood Education.

e. Primary school providers would be required to coordinate their programs with those of the health and social service agencies to provide service to the whole child.

The state would require the primary school to coordinate with local health and social service agencies to assure that each child has health, vision, and hearing screening. Parents could either certify that the child has received such screening by a private physician or the primary school staff could coordinate screenings with local public health agencies. Results and recommendations for corrective action would be provided to parents.

Nutritious breakfasts and lunches would be a part of all primary school programs.

f. Providers would be required to specify plans for parental involvement and parenting education.

Within the parameters of their contracts, primary schools would be required to include parents on their governing bodies. State guidelines would encourage primary school programs to involve parents as an integral part of all programs; programs would be encouraged to provide training for parents on ways to support the primary school program at home.

Parents would be required to donate a certain amount of time or service to primary schools. Providers would be required to provide voluntary parenting education for primary school parents.

C. Discussion

The above design presents ideas which may be controversial, though they are well grounded in both the research literature and practice. Nonetheless, they represent a departure from the current system, and therefore questions about the design should be raised. The following discussion addresses some major concerns.

Why Should Preschool, Kindergarten, and First Grade Be Combined to Form a Primary School?

Young children do not learn in the same ways as do older children and adults. The research literature strongly argues that education of young children should be in keeping with their unique ways of learning: formal schooling should not be pushed down to four-year-olds (Elkind, 1986). Young children learn best through direct encounters with their world rather than through structured formal education involving the learning of symbolic rules.

In child development theory, the main features of the general developmental model, implicit in the work of Freud and Erickson and most clearly articulated by Piaget can be summarized as follows:

> There is an order in the stages of development that does not vary; no stage can be skipped; each stage is more complex than the preceding one representing a transformation of what existed before; each stage is based on the preceding one and prepares for the next one. (Breger, 1974)

Piaget described the stages of cognitive development as (all ages are approximate):

- Sensimotor: from birth through age one and a half;
- Intuitive or Preoperational: from one and one half to six;
- Concrete Operations: from age 6 and one half or 7 to puberty;
- Formal Operations: from early adolescence to adulthood. (Breger, 1974)

In Piaget's cognitive model, children go from a state of sensations and reflexes, to a physical or sensimotor apprehension of themselves and the world, to crude symbolic (intuitive) categories; to a more differentiated -- but still literal or concrete -- way of thinking; finally, to the ability to manipulate abstractions (Breger, 1974).

Four- through six-year-olds are in the last stages of pre-operational thought and grouping them in the primary school is sensible. By age seven, most children have moved on to the concrete operational stage and are ready for formal schooling. This is why we propose that the current preschool, kindergarten, and first grade be consolidated into one learning unit where all children can develop at their own pace.

Many advocates of early childhood education argue strongly against programs for four-year-olds that are an extension down of the traditional school program. (Elkind, 1986; Zigler, 1987; Strother, 1987; Zimiles, 1986). The same advocates, on the other hand, see a role for the state in providing four-year-olds with high quality, developmentally appropriate preschool programs.

Our recommended primary school would do just that. By grouping four-, five-, and six-year-old children in an ungraded school, the primary school would allow them to progress at their rate of development without any pressure for every child of the same age to be at the same stage. Developmentally, four-, five-, and six-year-olds are moving through the same continuum. Their mastery of their bodies and their thought processes are continuing but not in a linear fashion.

Because of the variation in their development, children at this age can be effectively grouped and regrouped for different learning situations.

Research supports the flexible heterogeneous grouping of children in the primary school. Heterogeneous grouping in early childhood settings increases the likelihood that younger children will learn from older ones and that older children will develop nurturing skills. Older children will achieve a better mastery of those skills that they help younger children master. (Clarke-Stewart, 1977) Heterogeneous grouping helps smooth out some of the unevenness seen among children from age four to age six who might all be in Piaget's preoperational stage of development but who have widely varying capacities to understand material and who have different rates of development.

Heterogeneous groupings allows those who have mastered a concept help others understand it. Research evidence suggests that children who give help are more likely to have improved academic achievement (Webb, 1982). Damon (1984) found the largest gains in academic achievement when children with different cognitive strategies work together.

The model for the primary unit is much like the British Infant School and like the organization of schooling in the Scandinavian countries and the Soviet Union. In the Scandinavian countries as well as in the Soviet Union, children start formal schooling at age seven. For the two or more years prior to school entry, children are enrolled in a developmental-based and integrated preschool program. In Great Britain, children enter Infant School at age five and the curriculum there is developmental and integrated, responding to the needs of the child.

Why De-emphasize Academic Learning?

In recent years, many preschool programs having tended to emphasize instruction in academic skills (NAEYC,1987). In doing so, they seem to be mirroring the same trend in kindergartens all across the country (Elkind, 1986). Traditionally, the major functions of kindergarten had been to promote both social and emotional growth of children. Now, many kindergartens have introduced curricular and paper and pencil materials that were used with first graders in earlier times (Elkind, 1986). The filtering down of academics into the kindergarten program happened over a number of years and the reasons include:

- School administrators, concerned about the need to increase student test scores in the elementary grades have put increasing pressure on the kindergarten curriculum;
- Parents, often anxious to give their children an extra push, feel that mastering academic skills early leads to higher achievement in later schooling; and
- Publishers who see a new market for workbooks and pencil and paper activities have designed pencil and paper materials for use in kindergarten.

Despite this trend, there is no evidence that an early mastery of academic skills will lead to improved academic performance. To the contrary, some new evidence suggests that an early emphasis on academics can lead to early burnout.

In a recent review of the literature on early learning, Katz (1987) concludes that early introduction of academic skills (phonics, counting, etc.) may, in the long run, undermine the development of the child's disposition to use the skills he acquired. Also, children exposed to academic topics before they are ready may learn to feel incompetent because of their inability to master material too advanced for their development (Katz, 1987).

Many criticisms of kindergarten programs center on their use of inappropriate methods and materials for young children. Kindergarten programs have too often seen themselves as downward extensions of the regular school program and have tried to teach children academic skills. According to Grubb and Lazerson (1977) kindergarten teachers "taught the behavior thought necessary for first grade reading: sitting still, proper appreciation of books, recognition of letters, and acknowledgement by children that they had to read in first grade. To aid in this process, kindergarten accepted testing and measurement."

Formal instruction introduces the child to the concepts of 'correct' and 'incorrect'. One child gets the question right while another gets it wrong; the children believe one child is smarter than another. These types of comparisons are harmful at later stages in the child's academic career -- but "truly damaging among preschoolers" (Elkind, 1986).

Many school districts in California use some form of kindergarten readiness test to determine if children are able to cope with the academic demands of a kindergarten program. On the basis of the test, schools advise parents to enroll their children in kindergarten at age five or to wait until the child is six. Schools in many areas also use test results to determine placement of children in kindergarten programs: those children with low scores being placed in the "slow" kindergarten.

Kindergarten readiness tests range from several commercially designed tests to teacher developed tests. Several researchers (Wood, Powell, and Knight, 1986; Meisels, 1987) have found that one of the most popular of the tests -- the Gessell School Readiness test which is asserted to produce a balanced, accurate measure of developmental age -- has a 50 percent error rate when used to predict kindergarten failure.

Testing and increased academics in kindergarten are causing parents and school districts to make unusual adaptations. Some middle income families are holding their children, especially their sons, out of kindergarten.[3] Since it is more likely that when advised to hold their children out, middle-income parents are able to pay for an extra year of preschool or day care, some middle-income children are entering kindergarten at age six and at a later point in their development than their low-income counterparts.

Low-income families are less likely to be able to afford an extra year of preschool and sometimes are enrolling their children against the advice of the schools. Classroom comparisons are then made between the two groups of children at different points in their development. It is much more likely then, that the younger, less developmentally ready children will be tracked as slow learners.

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[3] Boys tend to develop fine motor skills later than do girls. Fine motor skills allow us to hold and manipulate small items like pencils and crayons.

Over the past several years, California schools have retained an increasing number of kindergarten children. As noted above, state data show that the statewide retention rate in academic year 1981-82 was 4.4 percent -- with a range across school districts from 0 to 50 percent. The data also show that boys were more likely to be retained than girls and that children with a first language other than English were more likely to be retained than those with English as a first language.

Children who spend two years in kindergarten are worse off in two ways. First, they experience failure at an early age, and that failure is known both to the child and to future teachers. Studies show that this early failure leads to tracking and to lowered expectations (Rist, 1972). Second, the reason they fail kindergarten is that they were developmentally not ready for an academic program. During the two years of kindergarten, they are never allowed to mature developmentally in an appropriate setting.

Evidence suggests that children who repeat kindergarten on teacher recommendations do no better for the remainder of their schooling experience than do children who were labeled unready for first grade and whose parents refused retention. (Shepard and Smith, 1985)

Many of these problems are simply unnecessary. They are a by-product of inappropriate academic expectations, which in turn seem to come from the present structure of public schools that assigns a child of age 4 to preschool, 5 to kindergarten, and 6 to first grade. Consolidating these grades into one learning unit and deemphasizing formal academics in favor of development learning would end these damaging practices.

Why Emphasize Language Development?

The goal of language development in the primary school would be to build common language proficiencies which form the underpinning of all language skills, whether in English or the primary language. Children who develop common language proficiencies, either through their primary language or through English, achieve at higher levels in school than do children who do not develop these common proficiencies.

Language development activities for primary school-age children would be offered in a manner which clearly differentiates between the primary language and English. One ideal means to differentiate between languages is the use of what are called language relationships. Children form language relationships when an adult (teacher, assistant teacher, aide, parent, volunteer, etc.) speaks to them solely on one language, either the primary language or English. Children are motivated to learn a new language when they form language relationships with adults in the primary school program.

Young children form concepts both separate from language (i.e. motor skills) and integrally related to language (problem solving skills). It creates confusion for children to interrupt conceptual and cognitive development in the child's first language through instruction in a second language. The formation of language relationships in English *and* the primary language is recommended for young children, as opposed to mixing two languages, structured language instruction programs, or simultaneous translation. It is important that staff in the primary school understand the principles of language development, and that they consciously form language relationships with their young students either in English or in the primary language.

Sound language development programs for young children help them to learn by doing; to learn through social interaction with peers who are speakers of English and peers who speak the primary language; and through formation of primary language relationships and English language relationships with adults. Language activities would convey at all times respect for the primary language and culture of the child.

Children whose first language is other than English who emerge from language development programs in primary school will be well equipped to succeed in more structured language assistance programs in elementary school.

Why a Mixed Public and Private System?

To restructure the way the state provides schooling to four-, five- and six-year-olds, the state would build on the delivery model already used to provide preschool services to low-income families -- that is, a state contract with public and private organizations for the delivery of primary school programs. The use of both public and private contractors would be necessary to meet the demand for primary school services. After the transition period, primary schools would enroll approximately 400,000 four-year-olds a year at the same time enrollments in elementary and secondary school would also be expanding. It would be extremely costly for the state to insist on only using public school facilities to meet this need, particularly when approximately forty percent of four-year-olds now attend private facilities.

Moreover, pre- and primary school should be small and diverse to meet the needs and allow the participation of the community. This is precisely the profile of private providers of preschool and kindergarten. Uniformity of delivery unfortunately characterizes the public schools. At this sensitive stage of children's lives, parents should be particularly free to shop for schooling most suited to them and their children.

Why Require Health and Nutrition Services?

The primary school program would coordinate with the public health system to assure that every child in the primary school has health and vision screening. Schools currently require that children who enroll have been vaccinated against several diseases. The primary school program could expand that process and require that children be screened for health and for vision in addition to being immunized.

It is important to school success that children be in good health and that they are able to see and hear clearly (or have those deficiencies corrected). Children who come to school with undetected health, vision, or hearing problems can be at a severe disadvantage in the classroom and are more likely to be assigned to special education during their school careers.

Proper nutrition has also been linked to school success, particularly for poor children. The primary school program would also include a nutritious breakfast and lunch program. As a part of the parent involvement component, aspects of health and nutrition would be topics for parent information sessions.

Why Require Parental Involvement?

Involvement of parents as partners in preschool programs is critical to the success of the programs. Researchers and practitioners who have examined the issue argue that programs for young children should be responsive to the needs and desires of the family. They further argue that parents have a stake in the values and skills taught in a day care setting and should have a voice in the philosophy of that care (Clarke -Stewart 1977; Grubb and Lazerson, 1977; Bloom, 1981). One way to encourage parent involvement and to assure flexibility and programs designed to meet children's needs is to continue to encourage a pluralistic system (Grubb and Lazerson, 1977).

Bronfenbrenner (1979), in reviewing studies of early childhood education programs finds that those programs which emphasize language development skills, "learning to learn" skills, and motivation to learn have worked well, but not as well as similar programs which also include parent support.

Primary school programs would include a component that helps parents learn the skills necessary to becoming informed partners in the education of their children. Bloom (1977) argues that parent involvement in early childhood programs is important because parents are a constant influence in the lives of their children while a particular teacher will come and go after a year of interacting with the child. Therefore, parents have to provide continuity throughout the child's education. Grubb and Lazerson (1977) argue that parents must manage their child's progress through the schools. If parents feel comfortable interacting with the primary school, it is easier for them to continue that interaction throughout the child's schooling.

1B: FOCUS ELEMENTARY AND SECONDARY EDUCATION ON CORE ACADEMICS (AGES 7-16)

Elementary and secondary school grades should be realigned and consolidated so that all students can learn the same core competencies by the end of the tenth grade.

1. **Establish Core Competencies**. The state would establish core competencies that would be the same for all students. The core competencies would stress general and broadly applicable knowledge, reasoning, problem-solving, and higher-order skills. They would include communication (reading, writing, and speaking) in English and in a second language, mathematics, science, social studies, and the arts.

2. **Encourage the Elimination of Ability Grouping and Tracking**. Training, incentives, and information would be used to encourage schools to eliminate the tracking of students into career and ability groups.

3. **Grade Consolidation**. The comprehensive high school and junior high would be consolidated into a common high school program.

A. The Need

Designed almost a century ago, the basic structure of elementary and secondary education limits the ability of most students to master the skills needed for the 21st Century. The above recommendation proposes ways to realign the grades and focus education on core academic subjects so that the public schools can provide both excellence and equity.

Despite recent efforts to provide model curriculum standards throughout the state, California elementary and secondary education remains unfocused. Educators appear confused between providing an "academic" education for students who are going on to college, and then some other kind of education for all the other students. Even the goals of academically-oriented education appear in flux, with high schools now teaching courses previously given only in colleges and elementary schools requiring courses previously considered as high school fare. Many districts appear to be interpreting the push for higher standards as requiring more specialized college-type knowledge for all students.

All Students Need to Learn the Same Core

What skills will students need to be full and productive citizens in the 21st Century? Should college-bound students receive one type of education and other students a different type of education? Should the public schools expect some students to learn less than others?

The answers are simple, but they imply a radical rethinking of today's curriculum and course offerings. A diverse group of national commissions and reports come to similar conclusions:

- *All* students will need the *same* fundamental skills.
- Regardless of whether a student goes to college or directly to job employment, he or she will need a firm foundation in the core areas of communication in English (and perhaps a second language), mathematics, social studies, and science. The level of skill needed is competence in the higher order skills of critical thinking, reasoning, and problem-solving. Success in both academia and the marketplace will lie in developing the skills and attitudes associated with learning-to-learn and manipulating information, rather than absorbing specialized facts.[4]

Schooling is presently not organized to enable *all* students to achieve this new level of core competence. On the contrary, California schools, modelled on now obsolete concepts relevant to America of the early twentieth century, operate on the premise that college-potential youth should learn different material from the job-bound. Rather than a common core, California's comprehensive high schools provide separate but unequal curricula for their students. As the next section discusses, studies have shown that students who are not in the academic track receive not only different but less demanding material and are expected to learn less. (A later section will argue that instruction is also organized under the false assumption that most students cannot learn.)

Put bluntly, most California schools are structured to segregate students into higher and lower tracks; students are directed into the tracks by the time of junior high in part based on ability groups assigned in elementary school (and "failures" in kindergarten); few students ever progress from the lower to the higher track; and lower track students are more likely to drop-out and have low performance. Research discussed below shows that most students are likely to be academically hurt by tracking, including many students in the higher tracks. Therefore, this hidden structure of schooling inherently limits the current level of student performance and the level that will be possible in the future.

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[4] At a time when many of California's schools are failing to provide an education that is adequate for functioning in today's society, rapid changes in our economy demand that tomorrow's workers possess higher levels of literacy than ever before. In an increasingly information and services based economy, many new jobs will require new or higher levels of skills. A report by the Education Commission of the States (1983) suggested that the basic skills of the new economy will be: 1) evaluation, analysis and problem solving; 2) organization, information access and management; 3) synthesis, application, and creativity; 4) decision making given incomplete information; and 5) communication through a variety of modes. As a result of these changes, there will be glut of workers with low-level skills and increased blue collar unemployment and dislocation. Unemployment will be largely a consequence of lack of education and skills rather than a shortage of job opportunities. In addition to requiring a higher level of skills, the new economy will require that workers be able to learn new skills on a regular basis, both to keep up with the changing demands of their jobs and to retrain for new jobs as old jobs become obsolete. It has been predicted that the average lifespan of specific job skills will decrease to ten years or less in the near future (Education Commission of the States, 1983). These new levels of skill will be needed by nearly all workers, not just those in managerial, technical, or professional occupations. The evidence is clear that the skills required by students entering the workforce directly from high school are becoming increasingly the same as the skills required of students going on to postsecondary education (National Academy of Sciences, et al., 1984; College Board, 1983; Boyer, 1983; Adler, 1982; Goodlad, 1983; Sizer, 1984). Two national education reform reports released in 1983 and 1984 published lists of basic academic skills and competencies that students needed to master. Academic Preparation for College: What Students Need to Know and Be Able to Do listed competencies required for students to succeed in postsecondary education. High Schools and the Changing Workplace: The Employers' View focused on the basic skills needed for productive employment. The two lists are remarkably similar; shared items include: 1) ability to comprehend and summarize ideas in written material; 2) ability to organize and present ideas in coherent written form; 3) ability to obtain and clarify information through questioning; 4) ability to estimate solutions to mathematical problems and judge the results; 5) understanding of basic mechanical, physical and chemical principles; and 6) ability to identify and formulate problems, evaluate solutions (College Board, 1983; National Academy of Sciences, et al., 1984).

Schools Now Provide Unequal Education

Americans expect and believe that schools will help to equalize the differences that children bring to their doors. On that first day, all children are bright-eyed and most seem excited about coming to school. What happens between that first day of kindergarten and 13 years later when those children are scheduled to graduate from high school that causes one of every three of those children to drop out of school? Why is it that for some of those children -- those who are Black, Hispanic, or from low-income families -- only one of two will graduate from high school?

This section provides detail on schooling practices -- ability grouping and tracking -- that contribute to these outcomes and prevent schools from providing all students with the opportunity to master the core competencies they need for the future.

Ability Grouping In Elementary School

Children are different. Each six-year-old brings a unique combination of skills, experiences, and interests to the classroom. Some of the students have visited the capitals of Europe while others have had few experiences beyond their own block. Some have explored the world of books with their parents, some have gone to formal preschool, some have highly developed verbal skills, some have musical talent.

At the time children enter school, these differences mean that reading readiness tests given to first graders show a few months' differential in the range of readiness for reading. By the time these same children enter high school (those who remain in school until then), that range has increased to a two-year or larger differential.

In California, poor and minority students are over-represented in the ranks of the educationally disadvantaged. As the demographics in California change over the next two decades, schools will be called on to teach larger proportions of minority children and must be better able to improve the educational outcomes for all children. However, ability grouping and tracking contribute to the widening of the gap between children who are ready on the first day of kindergarten to run with what schools have to offer and others who need a bit more help making that first step.

A Response to Diversity

Ability grouping in elementary schools and tracking in high schools are both organizational practices that group students putatively on the basis of their abilities and provide those groups with different school experiences. The chief rationale for ability grouping in elementary schools has been that some students are not as well prepared at school entry as others and that the less prepared students need additional work on their basics.

Ability grouping is designed to allow teachers to provide the appropriate level of instruction for each group. Instruction for the lower groups should provide some form of remediation which should close the gap that exists when children enter the system.

A major problem with ability grouping in elementary schools is that often there is no deadline set for when the gap should be eliminated and the strategies typically used in the classroom only serve to widen the gap -- relegating some kids to rote instruction on the basics while others progress at a much more rapid pace. Those students who are deemed disadvantaged rarely move up to a higher group; they continue through their elementary school years to fall farther and farther behind their classmates who are moving at a faster pace (Levin, 1987).

Grouping Theory and Practice

The question of how to group students in classes and how those classes are to be organized is one that has been discussed in the education literature for more than 50 years. Most schools are organized into grades, and students progress from one to another from kindergarten through grade 12. Students are promoted (or not) at the end of the nine or ten months in one grade to the next grade. American schools have not always been graded; in the past, one room schools often accommodated a large range of student ages. In addition, over the years there have been other experiments with ungraded schools. Vertical grouping is one way schools manage the differing abilities of children at different ages.

At any level in the vertical organization of classrooms, students must be grouped into horizontal instructional units. Schools make different decisions on how to get roughly 30 learners in each classroom. Perhaps the most controversial of the horizontal grouping issues is whether or not students should be grouped according to their ability. This issue is resolved in practice at two different levels: first, whether students are assigned to classrooms on the basis of their ability, and second, whether students are divided in the classroom into groups based on ability. The grouping of students in classrooms and between classrooms is another example of the school trying to minimize the diversity of students for instructional purposes.

In most elementary schools, teachers assign students to ability-designated groups for instruction in reading (Pikulski and Kirsch, 1979) and mathematics (Barr and Dreeben, 1983).[5] Grant and Rothenberg (1986) also argue that "for most children in public school, assignment to an elementary school reading group is a critical first step in an academic sorting process that channels some students toward moderate levels of achievement and some toward failure."

Why then, do schools continue the practice of ability grouping in the face of evidence which suggests that its outcomes are not always positive? One of the reasons it continues as a practice has to do with tradition -- schools have grouped students on the basis of ability for a number of years. Educators believe they are doing what is right when they divide children on the basis of their

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[5] Several authors argue that groups of different levels provide different social and learning environments for their members and that differing experiences children have in groups influence their acquisition of academic and social skills needed for success in future schooling (Grant and Rothenberg, 1986).

"abilities". Several important assumptions underlie educator's beliefs and the next section examines those assumptions.

Assumptions Supporting Ability Grouping

The belief that students will learn more in homogeneous groups rests on several assumptions:

1) that grouping can be done both accurately and fairly -- namely, that students can be separated on the basis of their ability and that the resulting groups contain students whose abilities are close enough to be treated alike in a teaching setting;
2) that ability grouping promotes overall academic achievement -- namely, that students learn better when they are grouped with others who are like them academically;
3) that some remediation will take place for those in the lower groups that will allow them to eventually catch up to the other groups and that this remediation is more likely to take place with other students who are like them; and
4) that homogeneous ability grouping does not harm the learning of students.

These assumptions all sound like good common-sense notions, and educators over the years have behaved as if they were true. It is important to examine each of these assumptions in light of research findings.

Fair and Accurate Grouping?

One important question is whether students can be divided into homogeneous ability groups that are truly homogeneous in ability. The premises on which ability grouping is built depend on the ability to differentiate among students by using some test instrument usually combined with teacher judgement to divide children into classroom groups.

In some California school districts for example, an assessment instrument is used with kindergarten children. The results of the test and teacher's judgement are used to determine to which kindergarten class a child will be assigned.

In other districts, children are assigned randomly to classrooms and then grouped for instruction in reading and or mathematics. Again, some form of test and teacher decisions about the child's ability and attitudes form the basis for the grouping decision. The assignment system is not foolproof, and some researchers have looked at the results of grouping decisions to see just how homogeneous the resulting groups were. Eder (1983) found that half the students in one first grade class would have had different initial group placements had reading readiness scores been the only criterion. First grade teachers also take into account their perceptions of students' maturity and attention spans in initial group placements (Eder, 1981, 1983; Barr, 1975). Immature students and students with short attention spans are frequently placed in groups lower than their abilities merit (Grant and Rothenberg, 1986).[6]

Academic Achievement for All?

Much of what has been written about ability grouping and much of the research has been directed toward the question of whether or not ability grouping "works," that is, whether students learn better when they are grouped according to their ability.

Literally hundreds of studies over the past 50 years have attempted to answer this fundamental question regarding ability grouping. Slavin (1987) concludes that the "achievement effects of ability-grouped class assignment (in comparison to heterogeneous grouping) is essentially zero." Esposito (1973) finds that ability grouping as currently and generally practiced produces:

a) Conflicting evidence in promoting scholastic achievement in the relatively high or superior groups;
b) Almost uniformly unfavorable evidence for promoting scholastic achievement in average groups; and
c) Almost uniformly unfavorable evidence for promoting scholastic achievement in relatively low achievement groups.[7]

In a study of the results of the 50 best controlled studies published between 1960 and 1968, NEA (1968) found that for each study that showed a net gain in achievement, a comparable study recorded a net loss (for every ability level except the lowest, which had more losses than gains).

A growing body of literature suggests that once groups are formed, they are treated differentially on variables which interact in important ways with achievement. For example, several recent studies describe how pacing, time factors, instructional tasks (including silent vs.

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[6] Goodlad (1958) argues that ability grouping of students either inter- or intra-classroom does not result in reducing the variability in either the group or the classroom by very much. He cites a study in which children with IQ above 120 and below 90 were removed from a classroom and the range of reading ability among the remaining students was from 2.7 to 11.2. Goodlad (1960) also estimates that dividing a group of elementary students into two ability groups on the basis of IQ reduced total variability in each class by only 7 percent. If the group were divided into three groups, heterogeneity was reduced by 17 percent. Balow (1964), in a study of California seventh-grade arithmetic students compared their group placements with their scores on computation and problem-solving tests. He found that although students in the first group on average did better on the tests than did students in the middle group on average and the students in the middle group did better on average than students in the lower group, there was considerable overlap of scores in the three groups. The range of overlap (the range of scores obtained by some students in every section) was sufficiently large that more than half of all students scored within that range on the computation test and 85 percent within that range on the problem-solving test. The issue of whether homogeneous ability grouping is accurate creates an additional problem. Teachers assume that ability groups are homogeneous and teach them as if they were. If, in fact, teachers are making large mistakes in grouping assignments, they can have very negative effects on children's ability to learn.

[7] Slavin (1986) identified 14 methodologically adequate studies of grouping and found that the median effect size on standardized achievement measures was approximately zero.

oral reading), interaction patterns, and discipline practices benefit higher level students (Allington, 1977, 1980, 1983; Barr and Dreeben, 1983; Good and Marshall, 1984; Hiebert, 1983).

Remediation?

Another argument in support of elementary school homogeneous ability grouping is that students in the lower ability groups should receive remedial instruction that will help them catch up to the other students. Placing the low achieving students in a less demanding instructional setting is one of the ways educators have sought to remedy the problem. Levin (1987) argues that such a design reduces expectations for the students and by not setting a time limit almost guarantees that the students in the slower groups will never catch up. Levin also argues that in settings for low achieving students, the instructional pace is slowed and that the students are exposed to materials and instructional techniques that emphasize rote instruction and drills. Interesting material and applications are omitted in favor of repetitive practice.

The argument is that the low achieving students need to master the basics before they can advance to more interesting material. Given what we know about learning, we would expect that children exposed to less material will learn less. And, if grouping remains stable, children exposed to less will fall farther and farther behind their faster moving classmates. Those students in the lowest group in kindergarten, will be farther behind at the end of kindergarten, and will continue to lag behind their classmates as long as they are exposed to less material.

One way to test whether or not ability grouping serves to reduce the gap that educators identify at the beginning of school is to look at the movement from one group to another. Only a few studies have looked at the issue of intergroup mobility patterns but their findings are consistent. There is little movement up from one ability group to the next. Balow (1964) finds that although the school that he studied claimed to have flexible grouping, none of the 335 students that he studied changed sections over the year. Barker Lunn's (1970) analysis of 36 streamed junior schools in England found that only about 6 percent of her sample of 7 year old students changed streams during each of the next 3 years although the original placement of 15 percent were incorrect from the start.

Teachers typically alter reading group assignments in the early weeks of the term, but placements then tend to stabilize with few subsequent changes (Eder, 1983; Good and Marshall, 1984; Weinstein, 1976). Specifically, there is little movement out of the bottom groups or into the top groups, even when children move on to a new teacher in a new grade (Rist, 1970; Grant and Rothenberg, 1986).

Does No Harm?

A growing body of literature has examined the connection between ability grouping and student's self-concept. Ability grouping has been found to affect self-esteem, lowering the self-concept of students in low groups and inflating the self-concepts of students in high groups (Borg, 1966; Eder, 1983 a; Esposito, 1973; Findley and Bryan, 1975; Rosenbaum, 1980). There is also evidence that reading group assignment becomes a symbol of generalized academic and social competence in the eyes of teachers and peers. Labels derived from reading group assignment carry over to other learning activities and may serve to stratify social relationships among children (Rothenberg and Grant, 1986).

Evidence from qualitative studies of the effects of tracking, provide additional insights into the issue of student self-esteem. Reports of children from different ability groups about their views of themselves and others show clear distinctions in the ways in which the students perceive the differences among group members (Mason, 1984):

> "Kids in the bottom group don't care..."
>
> "I'm in the high group ... Kids in the other groups are retards."
>
> "Being in a low group you feel like, well, you're being put out of the way. It's sort of a punishment for being too dumb to do the work. You feel that if other kids can, why can't you ... there has to be something wrong."
>
> "They're just not good enough."
>
> "Makes me feel like I'm not much good. This puts you off school and soon you spend most of your time trying to avoid work."

Why Do Schools Still Group on the Basis of Ability? Esposito (1973) at the conclusion of his review of much of the literature on tracking over the last 40 years concludes:

> If one of the principal objectives of the American educational system is to provide each child with an equal educational opportunity to maximize and develop his potential so that he may benefit himself and thereby contribute to the larger society, then ... this cardinal objective will *not* be realized. In a very real sense, the extent to which the current practice of ability grouping is permitted to exist in public schools represent the extent to which professional educators and governmental agencies sanction sub-quality education in a setting that is charged with the responsibility of developing each child to his fullest. It would seem that such an expectation is reason enough to put a halt to the practice.

In a similar vein, Rosenbaum (1980) concludes his analysis of ability grouping literature with the following:

> My own observations and my reading of the literature lead me to believe that ability grouping and curriculum grouping do contribute to the undesirable outcomes associated with grouping. Although differences among students may also contribute to these outcomes, the formal systems which group students into separate classrooms by ability and curriculum seem likely to increase the salience and importance of student differences, to confer additional invidious social meanings and evaluations onto those differences and to create social groups, of which the lower ones will share feelings of deprivation and resentment toward the higher ones and towards the school.

Tracking In High School

The previous sections examined ability grouping in elementary schools. This section examines the process of tracking at the junior high school and the high school level. There are some clear similarities and connections between the two processes.

What Is Tracking? Tracking is the process of dividing students into separate classes based on the post-secondary plans of the student, the achievement level of the student, or a combination of the two factors. Two forms of tracking are seen in California secondary schools and each is seen in a variety of permutations. Curriculum tracking is a feature at most high schools. Students are classified on the basis of their post-secondary plans and complete courses designed for college-preparatory, vocational, or general students. Tracks and classes within them are labeled either in terms of the level of the students within them -- low, average, or high; or according to the postgraduate destination of the students -- college preparatory or vocational.

The rationale for three (or more) distinct curricular tracks for students is that schools can better address the differing needs of students for their future careers. College preparatory curricula are designed to prepare students for college while vocational curricula are intended to prepare students to enter the work force. The general curriculum is to give students who are undecided an opportunity to prepare for either path by allowing a student to take various combinations of vocational and academic courses. In 1986, California is estimated to have had 46 percent of its students in the general education track, which is higher than the national average.

Ability grouping is the second form of tracking seen in junior high and high schools. Academic subjects -- particularly mathematics, English, and science -- are divided into different levels for students of differing levels of achievement.

In some schools, students are divided into ability groups within each curricular path -- creating an honors academic path, a high status occupational track (banking careers, e.g.) and a low status occupational track (welding, e.g.). Most students in the vocational curriculum are in a low track in any case so the predominance of vocational courses in California comprehensive high schools are directed at the students at the lower end of the achievement spectrum (Stern, et al., 1986; California State Department of Education, Paths Through High School, 1987).

Schools differ in the number of ability groups they form, and within the same school some subjects may have more levels than others. Some schools schedule students at the same achievement level to stay together for most of their subjects. At these schools, a single decision about a child's achievement level governs his or her placement in several subjects. Other schools track separately for each subject, allowing a student to be placed in high ability English and average math.

In most schools, the process of tracking is not nearly as orderly as it is described above. The development of the school master schedule and college entrance requirements can cause unplanned tracking. In some schools, elective subjects like music and art become low-track courses because college preparatory students do not have the time in their schedule to take them. In other schools, required courses like driver education or physical education which are intended to be heterogeneous become inadvertently tracked because other track requirements keep students together during the rest of the day (Oakes, 1985).

The process of tracking raises some important questions that the following sections will address:

1) What criteria are used to make tracking decisions?
2) How flexible are the track assignments?
3) What are the instructional implications of tracking?
4) Do student outcomes support the assumption that tracking serves student needs?

Criteria for Tracking. The criteria for tracking into curricular groups (career tracks) are different, in theory, from those used to assign students to ability groups. Curricular grouping should be based on each student's future aspirations while ability grouping is determined by a student's past academic performance. In reality, this distinction is blurred, and factors other than student aspirations, including past achievement, contribute to a student's placement in a curricular group.

Central to the justification for curriculum grouping is the notion that students and their parents make a free choice as to which path the student will follow. Few studies have examined the question of why students enroll in a curriculum that offers low-status and low opportunities, or the companion question of whether students are placed according to their wishes. Several recent studies using large data sets have examined this question and found the correlation between senior's educational plans and their curriculum assignment to be less than .60. [8]

These studies indicate that students' choices and their curricular path do not always agree. To understand what else might be going on, some researchers have taken a closer look at the process by which students make their choices.

Although students discuss their choices with parents, friends, and teachers, high school counselors have perhaps the most important influence on helping and advising students on their career choices and which curriculum will meet their needs. Rosenbaum (1980) argues that the counselor's role is twofold: giving information and giving advice. Several researchers have studied counselor behavior and their findings suggest that counselors also attempt to sway the decisions of students to the curriculum track that the counselor feels is appropriate.

Erickson (1975) observed videotapes of meetings between counselors and students. He found that counselors influence student choices by the ways they describe career options and the ways to achieve them. For some students, counselors emphasized the difficulties of a particular course of study and did not address the ways the obstacles could be overcome. For other students, the counselors emphasized the positive aspects of a course of action and pointed out the ways in which the student could manage the difficulties. Despite societal norms and school rules that students should all be given the same kind of help, Erickson found that shared ethnic identity, shared speech patterns, and common interest were likely to be associated with more positive counseling.

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[8] Rheberg and Rosenthal (1978) found a .57 correlation for ninth graders and using National Longitudinal Study data on the H.S. class of 1972, Rosenbaum (1980) found a .53 correlation for high school seniors. For a different view, see Coleman (1966) and Jencks (1972).

Rosenbaum (1976) looked at ways in which counselors influenced student decisions by observing counseling sessions and conducting interviews with a sample of students. When counselors were advising students to select the general curriculum, they provided information about the advantages of that curriculum while not providing information about the disadvantages. On the other hand, when advising a student to choose the college preparatory curriculum, they provided very different information. Other studies looked at differing aspects of the student-counselor relationship. Heynes (1974) found that students in the college preparatory track had more access to counselors than did students in other tracks.[9]

As in ability grouping in elementary schools, teachers and counselors use test scores and past performance to judge a student's academic performance, and use that judgement to place students in classes in secondary schools. The high correlation between placement in vocational curricular tracks and low-ability classes suggests that student achievement is as important a criterion in career tracking decisions as student aspirations. Thus, students who have not been well-served by the schools -- those whose achievement has been stunted by the effects of ability grouping in earlier years -- have their options further limited by curricular tracking in high school.

Flexibility of Tracking Decisions. The decision as to which path a student will pursue is clearly of great importance. When it is made for a 13-year-old, the choice involves a number of predictions about a student's values, abilities, goals and aspirations in the distant future, as well as assumptions and inferences about college admissions and labor market structure in the future. Apart from its curricular consequences, the very act of deciding which path a child should take in effect closes off other options. And, the act is a public one allowing everyone to know that some students are being prepared for a future that includes access to college and for occupations that confer higher social status in our country, and that other students are not. Teachers and other students can (and do) respond accordingly (Oakes, 1986; Rosenbaum, 1980).

In some other countries -- Great Britain, Germany, and Japan, for example -- decisions based on a student's future are made and students follow a separate curriculum. The decisions are based on performance in earlier schooling and on scores on tests. Students then enter schools that offer differing curricula and students have essentially no mobility among schools -- lateral movement is possible, but once the decision is made that a student is not going on for higher education, the student's options are limited to his particular vocational path.

The United States system of comprehensive high schools was designed to address the diversity among students and to allow students a mechanism for upward mobility. Schools are supposed to offer all children an opportunity and access to any career options that they and their parents choose. And, because most high schools are comprehensive, it is at least theoretically possible that students have mobility between tracks. Researchers have found that for the most part students only move down to a lower track -- not up. These findings are in direct contrast to American ideals of opportunity for advancement; they suggest that once a student has moved to a lower track, it is much more difficult for him to move up again (Rosenbaum, 1981).

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[9] In California schools, where counselor-to-student ratios are as high as 1 to 550, it is reported that the time available to any student is minimal, and that college preparatory students are consuming a great deal of counselor time, leaving very little for students in other tracks (Paths Through High School, 1987).

In a study of tracking in secondary schools, Oakes (1985) found that:

> Much of the curricular content of low-track classes was such that it would be likely to lock students into that track level -- not so much as a result of the topics that were included for instruction but because of the topics that were omitted. Many of the topics taught almost exclusively to students in low-track classes may be desirable learnings for all students -- consumer math, for example. But these topics were taught to the exclusion of others -- introduction to algebraic equations, for example -- that constitute prerequisite knowledge and skills for access to classes in different, and higher, track levels.

Instructional Implications. The tracked groups are not equally valued -- they form a hierarchy in the schools with the most academic as the top tier. Based on their track assignment, students in various tracks experience school differently. Because of tracking, there are greater differences in courses available to students within the same school than across schools, regardless of school size, wealth of the district, or range of student achievement levels (Paths, 1987).

Oakes (1985) found that students in different tracks "had markedly different access to knowledge and learning experiences." For example, students in high-track English classes studied standard works of literature, both classic and modern, were expected to do a great deal of expository writing (both thematic essays and reports of library research), and were expected to learn the vocabulary they would encounter on college entrance exams. In low-track English classes, on the other hand, students "rarely, if ever, encountered these kinds of knowledge or were expected to learn these kinds of skills." Reading skills were taught with workbooks, kits, and reading texts rather than with literature. The literature these students did encounter was limited to short novels written at a low level of difficulty. Student writing generally consisted of simple, short narrative paragraphs and filling out job application forms.

Education in higher and lower tracks differs in quality as well as content. Oakes (1985) found that high-track classes have more time set aside for learning by teachers, more time expected on homework, fewer students off-task, and more effective instructional practices. Low-track classes have less favorable classroom climates than high-track classes; students are less involved in classroom activities and display less trust, cooperation and good will among themselves.

Students in different tracks are expected to learn not only different material, but different behaviors as well. High-track classes emphasized independence, critical thinking, work on individual projects, self-direction and creativity. Low-track classes emphasized getting along with others, working quietly, punctuality, cooperation, and conforming to rules and expectations (Oakes, 1985). Oakes asked:

> Could it be that we are teaching kids at the bottom of the educational hierarchy -- who are more likely to be from poor and minority groups -- behaviors that will prepare them to fit in at the lowest levels of the social and economic hierarchy? And, at the other extreme, are we teaching kids at the top of the schooling stratification system behaviors that are most

> appropriate for professional and leadership roles? In essence, are we teaching kids at the bottom how to stay there and kids at the top how to get ahead?

Consequences of Curricular Tracking. Only recently have researchers begun to study curriculum grouping. At the secondary level, separate curricular tracks have been seen as responding to student needs -- some students plan to go on to higher education and they are placed in classes that prepare them for college work while other students plan to enter the work force and they are provided training appropriate for that outcome. A large group of students are undecided and end up in a general curricular track that supposedly prepares them for either work or further education. The question then, is whether these are in fact the outcomes of those curriculum groupings.

Research on postsecondary student outcomes show that general track students do no worse than vocational students in the work place -- but do much worse than students in the college prep track at getting into college. College prep students do a better job of getting into college even after background factors are controlled for (Rosenbaum, 1980).

Vocational students, on the other hand, have no marked advantages in the work place (Wilms, 1983). A recent study of vocational education in California (Stern, et al., 1986) concluded that:

> On the whole, vocational classes as currently offered in California comprehensive high schools are not demonstrably effective in helping students find jobs after they graduate, or in retaining would-be dropouts. Furthermore, there is no evident way in which reallocating resources among existing high school vocational programs would bring about much improvement in labor market outcomes for graduates.

Not only do many vocational education students fail to enter the jobs they were trained for, but the unemployment rate among students who concentrated in vocational education was three percentage points higher than the unemployment rate for all 16 to 19 year-olds (26 percent versus 23 percent), and nearly as high as the rate for high school dropouts (27 percent) (Stern, et al., 1986).

B. Explanation of Recommendation

1. **Establish Core Competencies.** *The state would establish core competencies that would be the same for all students. The core competencies would stress general and broadly applicable knowledge, reasoning, problem-solving, and higher-order skills. They would include communication (reading, writing, and speaking) in English and in a second language, mathematics, science, social studies, and the arts.*

In the 21st Century, all students -- whether college- or job-bound -- will need to learn how to learn, manipulate information, solve problems, and develop a solid foundation in reading, writing, communicating, calculating, scientific reasoning, and social studies. This proposal recommends that schools provide this common core of essential learning for all students.

The focus on core competencies would require a fundamental shift away from the comprehensive high school model. Rather than attempting to satisfy too many competing goals and doing a mediocre job at most of them, schools would focus on fewer essential tasks in order to accomplish them well.

Focusing elementary and secondary education on core competencies will clarify the mission of the schools by separating primary and secondary goals. Educators and students will know which skills, concepts, and knowledge in each subject area are most important. Education will shift from superficially exposing students to a comprehensive curriculum to achieving much deeper student mastery of essential material.

Core competencies would be based on the idea that there is a common core of skills and knowledge that all students need to master, but not on the assumption that all students should be exposed to a college-preparatory curriculum. The goal is to transform comprehensive high schools into academically-focused common high schools that serve the shared needs of all students.

Recommended Process for Establishing Core Competencies. This report recommends that the State Department of Education be authorized to coordinate the process for developing a set of statewide core competencies. This process would be based on broad-based participation of educators from schools, colleges, and universities, as well as of representatives from business and the community. The development of the core competencies would be an ongoing process of input and revision to reflect changes in what students need to know and be able to do. In practical terms, the development and phase-in of core competencies would take about two years per subject. Though the process of developing core competencies would be similar to that used to develop the state's Model Curriculum Standards, the core competencies would specify only what students should learn, not how they should learn it (see Recommendation 2A for further discussion).

The State Department of Education would disseminate the core competencies to all schools. The purpose of doing so would be to establish statewide goals for all students. However, core competencies would not be a core curriculum. Competencies are the desired ends of education; curricula are means to those ends. The core competencies would be educational outcomes that serve as goals for education, rather than specific course content or instructional processes for schools to follow. (Also see Recommendation 2A, which requires statewide exit tests for all students as a way to translate the general goals of core competencies into specific desired learner outcomes.)

Statewide core competencies will pave the way for high and clear standards and expectations that would be the same for all students, including the poor and linguistic, racial or cultural minorities. This approach advances both excellence and equity, rather than sacrificing one for the other. State goals for education would reflect the belief that all students can learn.

The focus on what both college-bound and job-bound students need to know will improve the quality of education for all students. While educators will be free to design the curricula and instructional approaches that are most appropriate for particular students, their goal will be to ensure that all students master the core competencies, and there will be no incentive to provide less material or lower quality instruction to job-bound students. Later proposals (see Recommendations 2 and 4) recommend that student advancement be based on performance rather than seat-time attendance, allowing high-achieving students to advance more rapidly.

Content of Core Competencies. The establishment of core competencies would set clear goals for elementary and secondary education. Core competencies would be knowledge, concepts and skills that all students, college-bound *and* job-bound, need to master. Core competencies would stress general and broadly applicable knowledge, reasoning, problem-solving, and higher-order skills rather than factual recall in narrow content areas. They would include communication (reading, writing, and speaking) in English and in a second language, mathematics, science, social studies, and the arts. Many core competencies would cut across disciplinary boundaries and would require a more integrated and holistic approach to curriculum and instruction.

The following example of what a core competency might look like is taken from a report issued by a national education reform commission in 1984, (National Academy of Sciences, et al., 1984):

> Reasoning and Problem-solving. The capacity of a person to reason and solve problems is the central indication of an educated person. Throughout their working lives, individuals will encounter problems or situations with various possible solutions. The ability to understand the consequences of alternative courses of action is an essential condition for success in employment. Well-developed reasoning capacity requires a person to be able to identify problems; consider and evaluate possible alternative solutions, weighing their risks and benefits; formulate and reach decisions logically; separate fact from opinion; adjust to unanticipated situations by applying established rules and facts; work out new ways of handling recurring problems; [and] determine what is needed to accomplish work assignments.

The knowledge, concepts and skills embodied in the core competencies would not, for the most part, be new or unusual; they are learned by many students today. What differentiates this proposal from current practice is an emphasis on general and interdisciplinary competencies over narrow and specialized knowledge. Several major commissions and reports have indicated the nature of interdisciplinary competencies (Goodlad, 1983; Sizer, 1984; National Academy of Science, 1984.)

The implementation of core competencies would also require a more integrated and interdisciplinary curriculum than found in most schools today. Timelines and strategies for redeveloping curricula would be included in required School Development Plans, and schools would be able to purchase assistance in accomplishing these objectives from districts, new Institutes for School Development, and other public or private providers (see Recommendation 4A).

Developing an integrated approach to instruction in the core competencies would require that most schools become different sorts of places than they are now -- organizations where shared goal-setting and strategizing, and intensive communication and feedback are the norm rather than the exception. Accomplishing this would necessitate providing schools with discretionary budget funding and authority, involving teachers, parents and community members in school governance;

and promoting team approaches to instructional management. These proposals are discussed further in Recommendation 3.

The core competencies would set statewide goals, but would not remove the local prerogatives to set local goals and curriculum. As community institutions, schools have other goals in addition to student mastery of core competencies, such as providing specific job training, instilling aesthetic values, and preparing students to cope with social problems like drug abuse. The local community would decide which of these goals their schools should pursue within the context of a state framework of core competencies. Goals for elementary and secondary education other than student mastery of the core competencies would be decided by parents and educators at the school level. School governance would be reorganized to promote parent and community involvement in schools, and parents and community members would hold schools accountable for achieving locally-determined goals as well as for mastery of the core competencies (see Recommendation 3B).

Under this model, school-level authorities would choose the courses they require. Secondary schools would be required to allow students to take one free elective per semester (about 17 percent of instructional time). Because statewide exit tests would measure student mastery of the core competencies, educators would presumably devote most of the remaining time to required courses in the core areas. Schools would decide which courses in areas outside the core competencies, such as physical education, vocational education, art, music, and driver education, to require or offer as electives.

The following are examples of how schools might allocate instructional time under this model.

Elementary schools:

- 65 percent coursework involving statewide core
- 35 percent coursework involving local goals

Secondary schools:

- 50 percent coursework involving statewide core
- 33 percent coursework involving local goals
- 17 percent student elective

In short, the statewide establishment of core competencies would guide the public schools but not eliminate local discretion. Indeed, it would further school-level decision-making because school authorities would clearly have to decide on goals beyond the core (see Recommendations 2A and 3A for discussions of deregulation and decentralization of authority to the school level).

2. **Encourage the Elimination of Ability Grouping and Tracking.** *Training, incentives, and information would be used to encourage schools to eliminate the tracking of students into career and ability groups.*

Establishment of the same goal for all California students -- namely, that they should master the same statewide core competencies -- should dictate the end of tracking. However, the state cannot do so by mandating its abolition. The thrust of our proposals is to decentralize authority, not to tell schools how they must conduct instruction. Despite the clear case for its removal, policy instruments other than state directives must be used.

Many practitioners have had successful experiences with instructional approaches that group diverse students together. Such techniques are discussed under Recommendation 4. Thus, eliminating tracking is pedagogically sound and feasible. The problem is that most administrators and teachers have not been -- and still continue not to be -- trained in non-tracking approaches.

The implementation of statewide exit tests, expanded school performance reports, intervention in failing schools, and parental choice of schools would provide incentives for educators to insure that core competencies are the focus of instruction for all students. Other forms of regulation or compliance monitoring would not be used for this purpose (see Recommendation 2).

New ways of training teachers would be the key to making these incentives work. Teachers would be tested on their knowledge of core competencies and modern instructional techniques with the new Professional Teacher Examination (see Recommendation 5B). This examination, in turn, would drive teacher education programs to change the way they train teachers. This initial preparation for teaching core competencies and use of heterogeneous grouping would be reinforced, and current teachers would be retrained, through a revised system of school-based staff development that would utilize staff development plans for individual teachers and administrators (see Recommendation 4A).

3. **Grade Consolidation.** *The comprehensive high school and junior high would be consolidated into a common high school program.*

Junior highs and middle schools are a relatively recent structural innovation that firmly took hold about four decades ago. The idea, which was not based on research findings, was that adolescents should be grouped together so that their common educational and developmental issues might be better treated. The separate school would become a transition between the intimacy of the elementary school and the departmentalization of high school. But there was another non-educational factor that propelled the acceptance of the separate junior high or middle school. At a time of rapid enrollment growth, these separate schools became "a wild card for solving facility and enrollment problems" (State Department of Education Middle Grade Task Force, 1987). Not incidentally, they created a new tier of administrative and bureaucratic operations in rapidly growing districts. As a standard history of California education notes, "Rarely was the choice of [starting a middle school] based exclusively, or even primarily, on educational considerations" (Hendrick, 1980, p. 25).

Judging by student performance, junior high and middle schools have not worked out well. Not only do scores on standard tests go down in these middle grades, but the gap between higher achieving and lower achieving students (particularly Black and Latino students) grows greater (The Achievement Council, 1988). Analysis of school climate and organizational ability to innovate also suggests that junior highs are less likely to have the attributes of effective schools than are elementary schools (Berman & Gjelten, 1984). To this day, there simply is no compelling evidence that these separate middle schools make educational or developmental sense. On the contrary, the available evidence points in the opposite direction.

Numerous reform reports in California and elsewhere have suggested steps to improve these middle schools. Reformers focus on devising means to alleviate the main flaw in the concept of these schools -- namely, that they are "caught in the middle" between the elementary and senior grades (SDE Middle School Task Force, 1987). Three steps are often suggested: one, finding the right grade or age levels to be included in these separate schools; two, defining the school's mission so that curriculum and instruction can be better articulated; and, three, using counseling to ease the transition from the elementary level and to the senior high level. These approaches are unlikely to be productive, except at the margins.

The problem is not one of fine-tuning, but of restructuring a fundamental defect -- the isolation of adolescents from other students. This isolation into a separate school exacerbates teenage development issues, particularly because the junior high and middle schools follow the rigid age-grade pattern typical of American schooling (Goodlad, 1984). Though girls generally develop sooner than boys during early adolescence, each child develops differently and at his or her own pace. Thus, each grade in junior high commonly contains a wide spread of youth at very different stages and openness for academic learning, despite the fact that they are all of the same age. In this setting, the sense of purpose in the junior high is confused: is it a holding ground for adolescents to work through their development, or a place for academic learning? No wonder Goodlad (1984) concludes that "Junior highs are often watered-down senior high schools, ill-adapted to the special needs of the age group" (p. 330).

In light of these profound difficulties, we propose that separate junior and middle high schools be gradually eliminated. Instead, the middle grades would be consolidated into either the elementary or high school, which we call the common high school. Though schools and their communities would decide on the pattern that is best suited to their circumstances, a pattern that fits well with the developmental and educational needs of students is the following: Schooling would be reorganized into the primary school (preschool through grade 1), elementary school (grades 2-6), common high school (grades 7-10), and specialized high school education (grades 11-12).

Students would leave primary schools when they are developmentally ready for academic work, at approximately age 7, and enter elementary schools at the second grade (see Recommendation 1A). Elementary instruction would provide students with a solid foundation in core competencies, including a second language (see Recommendations 6A and B), through the sixth grade, when students were approximately age 12.

The comprehensive high school and junior high would be consolidated into the common high school for students in grades 7 to 10, or approximately ages 13 to 16. We propose that instruction shift away from the current lock step age-grade approach to a system where students advance according to their achievement (see Recommendation 4). Under this approach, early adolescents would tend to be grouped with their developmental, not their chronological age, peers. They would no longer be isolated, but have older role models in the same high school -- a circumstance that might mitigate social adjustment issues. This proposed arrangement also would enable much more contact between teachers and students (see Recommendations 3C and 4). The common high school would be academically-focused with the goal of student mastery of core competencies by the end of the tenth grade. Instruction in core subjects for all students would replace the tracking and comprehensive curricula prevalent in most high schools today.

The goal of student mastery of core competencies by the end of the tenth grade does not mean that students need to learn less than is currently taught in the K-12 system. On the contrary, all students need to learn more than most students do today.

After students master the core competencies, they would be eligible for specialized high school education in grades 11 and 12 (approximately ages 17 to 18). Specialized education could focus on college preparation or vocational training, depending on student aspirations (see Recommendation 1C).

Grade consolidation would be accomplished by gradually reallocating facilities, personnel and resources. This shift would be done over a ten to twenty year period to minimize disruption, while moving steadily away from the junior high configuration. Opportunities for making a transition may arise in many different ways. A district that currently operates two junior high schools for 7th and 8th graders and a high school for 9th through 12th graders, for example, might reassign students to create three secondary schools, each containing grades 7 to 10. Specialized high school education for 11th and 12th graders might be housed at one, two, or all three of the campuses.

Grade consolidation would be promoted in teacher and administrator preparation programs and staff-development conducted by Institutes for School Development (see Recommendation 4A). Technical assistance in accomplishing consolidation would be provided by the State Department of Education and the Institutes.

1C: INSTITUTE A POST-10 OPTION OF SPECIALIZED EDUCATION

All students should be able to choose specialized education in line with their initial career aspirations after they master the core competencies at about age sixteen (the tenth grade).

1. **Student Eligibility.** During the last two years of high school, students would become eligible for a post-10 option by taking statewide exit tests to demonstrate their mastery of core competencies.

2. **The Options.** The post-10 option would enable students to choose specialized educational programs such as college preparation, vocational or technical education, fine or performing arts, and others that would develop to meet the needs of the 21st Century. Providers of post-10 options would be public high schools, Regional Occupational Centers, public post-secondary institutions (the California Community Colleges, California State University, and the University of California) and state-authorized private (non-sectarian) post-secondary institutions.

3. **Regulations for Providers.** Providers of post-10 education could not discriminate on the basis of students' race, gender, national origin, religious background, or physical handicap. Providers of post-10 education would be required to accept a state subsidy as full tuition payment.

4. **Information for All Families.** Regional Information Centers would be established and actively provide information to all parents and students about available post-10 options.

A. The Need

California's persistently high dropout rate is unacceptable. The human cost and drain on society make solution of this problem paramount. But dropouts and other related deficiencies cannot be solved within the context of the present structure of schooling.

California's exact dropout rate is in dispute. The official state figure in 1987 was 22 percent. However, the percentage of students from grade 10 in 1984-85 who left the system and did not graduate in 1986-87 was almost 33 percent (California State Department of Education, 1988; Achievement Council, 1988). This latter figure, called the attrition rate, may in fact underestimate dropouts (Minicucci, 1986).[10] Not only do approximately one of three students fail to graduate, but the attrition rate for Blacks and Latinos approaches fifty percent.[11]

Most students who drop out do so in grade 11, with many making their decision at about age 16 in grade 10. Policy to reduce dropouts unfortunately often focuses on identifying "at risk" youth, whose family and personal characteristics are correlated with leaving school. Students themselves identify school related factors as reasons for dropping out -- namely, being held back, truancy, failing grades, insufficient credits, low test performance, and placement in general or remedial tracks (Minicucci, 1986; Whehlage and Rutter, 1986; Ekstrom, et. al., 1986, as cited in Rumberger, 1986). By about the tenth grade, these students believe that the public school system is not relevant to their future.

Abysmal as the dropout rate is, it reveals only part of the story. Faced with courses that are unrelated to their needs and with few choices outside of the public high school, many students coast through high school selecting the easiest courses and cutting classes (Cohen, Farrar, and Powell, 1985). Sizer (1984) documents widespread student apathy by highlighting thirty years of education research which describes ways that school structure and dynamics promote apathy among students. Surveys of high school students continue to suggest that many students -- including many very bright students -- become frustrated and bored at school because they fail to see the connection between what is learned in school and what is happening in the real world (Stern, et al, 1986).[12] As Sizer puts it: "High schools must respect adolescents more and patronize them less" (Sizer, 1984, pg. 34).

These severe problems cannot be successfully overcome in the current comprehensive high school, which offers different educational programs (tracks) for different students. The preceding section analyzed how educationally unsound and socially undemocratic tracking is. High schools do prepare some well-motivated students for college entry through a structured set of courses, driven in large measure by requirements of four-year institutions. But for the remaining majority of students enrolled in the general, vocational or remedial track, the comprehensive high school typically provides a smorgasbord of courses -- some interesting, some useful, but many irrelevant to preparing students for the future. Students in these "lower" tracks are given very little guidance on how to choose a path for their lives and how to prepare themselves to take that path.

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[10] The estimate of 33 percent attrition rate from grade 10 does not take into account the large number of youth who leave school earlier. Moreover, this figure also underestimates total dropouts because it counts students who enter the system in the last two years, primarily due to immigration. However, the attrition figure includes students who left the system for reasons other than dropping out (e.g., out-migration and death). All things considered, Minicucci (1986) estimates a dropout rate of 37 percent.

[11] Though the trend data also are in dispute, the evidence indicates that the overall attrition rate since 1981 has significantly increased for all major ethnic and racial groups (Achievement Council, 1988).

[12] A recent national survey estimates that 50-60 percent of all high school students hold jobs; while 80-90 percent of all high school seniors have held at least one job during their high school years (Lewis, 1983 and Lewis-Epstein, 1981 as cited in Stern, et al, 1986). A 1980 survey high school sophomores and seniors revealed that 60 percent of the sophomores and 75 percent of high school seniors had either worked before or were looking for a job (Raphael, 1980, as cited in Sizer, 1984).

B. Discussion of Restructured High School

Fine-tuning the current structure will not help resolve these issues. Rather than funding more categorical programs for "at risk" youth or expanding the academic track, the comprehensive high school should be restructured.

Recommendation 1B proposed that the comprehensive approach be phased out and tracking eliminated. The junior high and senior high grades up through grade 10 would become the *common high school* where all students would be expected to master the same core competencies. If comprehensive secondary education were phased-out and all students were required to master the same set of core competencies, how could students who wanted to go to college become prepared, and how could students who wanted to go directly to jobs be readied? A simple solution exits: After students have mastered the same core competencies at about the tenth grade, they would then choose specialized education in line with their initial career aspirations.

Under this proposal, all students would continue their education by choosing two years of free specialized education after they have mastered the level of literacy that will be required regardless of their path in life. Students would be able to select where they would receive post-10 education. Providers would include public high schools which would offer specialized programs for the junior and senior years of high school, much as some schools offer "magnet" programs today. Other providers would be community colleges, colleges and universities, and private post-secondary institutions. Students would be free to specialize at these institutions in a wide variety of subjects. Some might choose college-preparation programs, vocational training, fine or performing arts, programs with a health services or computer orientation, or other programs that will become available as society changes.

This proposal could dramatically improve the motivation of students in high school. In the present system, most dropouts occur in the last two years of high school. Too many students do not see the advantage of staying with schooling that seems largely irrelevant to them. Others are bored and do not feel challenged by courses they must take to graduate. If instead of this system students were given the responsibility of choosing programs that appealed to them, the purpose of the last two years of compulsory high school could be transformed.

This positive result is exactly what is happening in Minnesota, which passed legislation in 1985 providing a post-10 option of the type advocated here (Berman et.al., 1984; Berman, 1985). Since 1985, high school juniors and seniors in Minnesota have enrolled, for joint high school and college credit, at community colleges, public and private (nonsectarian) colleges, universities, and vocational institutes. Almost 4,000 students throughout the state have taken advantage of the post-10 Option. A Minnesota Department of Education (1987) survey of first year participants found that a majority of the students enrolled in academic courses, studied for longer hours, and earned grades higher than some four year institutions' freshman class average. In a state that has the lowest dropout rate in the nation, six percent of the program's participants were former high school dropouts. Ninety-five percent of all participating students felt the experience has been challenging and rewarding (Nathan, 1987).

The Maine legislature has recently passed a similar Post-Secondary Options Program for junior and seniors in the state.[13] Legislators cited "the need to lower the dropout rate" as one of the major reasons for introducing and adopting the program. The program is set to go into effect in September 1988.

In addition to these direct benefits to students, this report's recommended post-10 option would introduce incentives for the public school system to be innovative and efficient -- and could thus could fundamentally alter the organizational dynamics of public schooling. Students in their junior and senior years would be able to attend any high school offering specialized programs. Therefore, high schools would have to compete for students with each other, as well as with post-secondary institutions. It is reasonable to expect that schools within and between districts would learn to cooperate by providing complementary programs. Magnet schools often work this way today. But instead of today's one or two magnet schools per district, we propose that all schools become magnets for the last two years of high school. For example, some schools might specialize in college preparatory programs oriented toward science and engineering, whereas others might adopt a "Great Books" approach. Or, a district might put resources into developing one school as the "Arts" school, and expect to attract students from outside the district. Schools would thus have incentives to streamline their offerings, and drop the collection of often superficial, irrelevant and expensive courses that are offered in the comprehensive high school.

The competition for students would go beyond the public high schools. Over time, community colleges would be likely to attract many students. They offer a wide range of courses in an environment that some youth find more challenging and conducive to learning. More students might select community colleges for the vocational and technical programs they offer. Though there are some outstanding vocational programs currently at the high school level -- and these programs will undoubtedly survive -- one possibility for the future may be that most vocational/technical post-10 courses will be offered by community colleges. From a state perspective, this development would be welcome: It would save state money by reducing the wasteful redundancy between high schools and community colleges in which students often repeat high school level material in the community colleges, help sharpen the mission of the community colleges, and allow high schools to eliminate those vocational programs that are obsolete and expensive.

The inability of high school vocational programs to keep pace with the rapidly changing economy serves as a case in point. A recent study on vocational education in California concluded that:

> On the whole, vocational classes as currently offered in California comprehensive high schools are not demonstrably effective in helping students find jobs after they graduate, or in retaining would-be drop outs. Furthermore, there is no evident way in which reallocating resources among existing high school vocational program would bring about much improvement in labor market outcomes for graduates. (Stern, et al, 1986)

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[13] Participation in the Maine Postsecondary Options Plan is voluntary for students and districts -- i.e., districts can approve or disapprove student requests to enroll in state colleges and universities.

Under this report's recommendations, students interested in vocational education could, after mastering the core competencies, choose to go to specialized vocational high school programs, community colleges, or Regional Occupational Centers (ROCs). Stern and his colleagues found that Regional Occupational Centers were better equipped to provide quality vocational programs than their high school counterparts.[14] ROCs possess an "entrepreneurial spirit" which could not readily be duplicated in public high schools. They have to attract students in order to maintain program funding. Centers have an interest in ensuring that their programs are in demand and not offered in surrounding areas.

Under the proposed Post 10 Options program, high schools could channel their resources and efforts into improving the core curriculum for the common high school prior to the junior and senior years. They could concentrate on preparing younger students to think critically, reason logically, and process complex information. Freed from having to be comprehensive, they reorganize and focus on providing the curriculum, programs, and instructional services they do best. Some high schools might decide not to offer courses for the eleventh and twelfth grade so that they could direct their energies to excellence in the earlier grades in the common high school.

The advantages of the post-10 option are equally great for students at all points on the achievement spectrum. The benefits to students who are now placed in general or vocational tracks have been suggested above: they would no longer be tracked but instead would be able to choose specialized schooling that fits their needs. Advanced students also would benefit. They could go to UC, CSU or private post-secondary institutions, and test themselves against others fully committed to college. This practice would allow the highest achieving students to advance more rapidly.[15] And this too might save the state funding, particularly in light of the increasing tendency for Bachelor's degrees to take five years.[16] School districts might be pleased that their "gifted" students would have appropriate instruction at the post-secondary level, and, therefore, schools could be relieved of the pressure of offering advanced material that might distort the curriculum for others.

The relationship between high schools and many four year colleges has been strengthened through the post-10 option program in Minnesota -- and the same result might be expected in California. The Minnesota Department of Education (1987) reports that cooperative teaching arrangements have been developed between high school teaching staff and university faculties. Teachers and administrators have been encouraged to develop more creative and diverse curricular offerings to meet the needs of students, while technology has been utilized to provide increased options in rural areas. The Minnesota Department of Education has concluded that: "The Postsecondary Enrollment Options program appears to be meeting its purpose. The majority of students are part-time which indicates that they are taking advantage of particular courses of interest and still maintaining contact with the high school" (Minnesota Department of Education, 1987).

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[14] Regional Occupational Program/Centers provide off-campus learning opportunities for high school students. In general, most students participate for half of the day and attend classes at their high school for the remainder.

[15] Current law allows students to take coursework in post-secondary institutions under appropriate approvals (see the next section's presentation of design details). The proposal discussed above is far more sweeping, and would establish post-10 choice as the norm of the system rather than the exception.

[16] Instead of a total of eleven years of publicly subsidized education after grade six (six years in secondary school in today's system plus five years in college), some students might complete their education in ten years or less (four years in the proposed common high school plus two years in college under the post-secondary option and four years or less in the full college program).

The combination of the post-10 option plus the common high school's focus on core competencies (along with the elimination of tracking) would restructure schooling so that California education could compete with the best education systems in the world. Education in many European countries and in Japan tends to be rigid and elitist, separating students after a testing period into specialized training in distinct academic or vocational institutions.[17] Ironically, American education implicitly separates children at even earlier ages, as discussed previously. The proposal here would restore democracy to American education by eliminating tracking and having the same high level of mastery of core subjects for all students. Students at about age sixteen would then have the right to choose more effective specialized education. Of course, students would always have the right to change from one specialized area to another. Rather than an elite system, the restructuring proposed here would produce equal opportunity for all students to pursue education to the fullest.

C. Design Details

1. **Eligibility.** *During the last two years of high school, students would become eligible for a post-10 option by taking statewide exit tests to demonstrate their mastery of core competencies.*

Students would become eligible for the post-10 option by taking statewide exit examinations or end-of-course tests in the core competencies (see Recommendation 2A for a discussion of proposed California exit tests). Students would have to take the exit exam, but the state would not establish a passing grade for the test and could not deny the post-10 option to any student who had taken the exit exam. However, schools could establish passing requirements for students under 16. These local requirements would limit the use of the option until students had reached 16 or had passed the local requirements.[18] Later recommendations also suggest that schooling shift to student advancement based on performance rather than promotion through the rigid grade levels now characteristic of the public schools. In this situation, students would take exit exams when they were ready and not at an inflexible grade level. Therefore, students could take the post-10 option at 18, 17, 16 or possibly younger.

Under the current system, students may request and obtain permission to enroll in a community college for specialized training, enroll in a continuation school or independent study program, enroll in a Regional Occupational Program or Center, or choose a specialty magnet. Unfortunately, these options are available to only a few students.

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[17] Though these systems are becoming less elitist and rigid. West Germany, for example, separate youth at twelve, and Japan at fifteen.

[18] Students could take the exams more than once (see Recommendation 2A).

High school students currently can and a small number do enroll in local community colleges. However, current funding mechanisms create incentives for districts and schools to limit the number of students choosing to enroll in community college courses. Schools and districts are both responsible for informing students of this option and have the authority to approve or deny students requests. For example, the student must be recommended to the community college by his/her principal, while the district of attendance has the authority to approve or deny the request to transfer (California Education Code, Sections 76001; 76001.5; 48800; 48800.5; 48801; and 48802). In order for the high school (and district) to receive their share of ADA, the student must attend the high school for the minimum high school day. Therefore, from a financial point of view, schools and districts have an incentive to discourage students from attending a community college on more than a part-time basis.

This report's proposal also would allow eligible students to attend any high school of their choice without regards to district boundaries or residency requirements (see Recommendation 2C for proposals for expanding parental and student choice of schools). Currently, students have few options to attend high schools other than that assigned by the district. An exception is the magnet school, which allows some students to attend high schools outside of their school attendance area (though not outside district boundaries).

As presently conceived, magnet schools have three serious limitations. First, these schools are not widely accessible to most students -- demand for magnet schools exceeds supply. Students are admitted on either a first come, first serve basis, or by achievement criteria making them less accessible to low-income and minority families. Second, resources (more experienced teachers, modern equipment, more ambitious students, etc.) are often channeled to magnet schools at the expense of the district's other schools (see Recommendation 2C for a more in-depth discussion of this issue). Third, some educators question whether magnet schools in the comprehensive context of current high school education can provide both quality academic education and specialized programs. Specifically, there is concern that students in some of these schools may be receiving quality technical education at the expense of receiving instruction in core academics -- language arts, history, math and science (Los Angeles Times, "Magnet Schools in L.A. -- Elitism or Education?" January 10, 1988; Metz, 1986).

This report's recommendation conceives of the magnet approach in a different way. Rather than the one or two magnets typical of most districts now, we propose that almost all high schools become magnets *for the last two years* of secondary school. This plan in a district avoids elitism and the creaming of the best students. Every school should have the quality and innovativeness to be able to attract students. Instead of comprehensive high schools, there would be common high schools (where all students would be expected to master the same core competencies by grade 10) and specialized magnet senior highs (offering specialized educational programs for juniors and seniors).

Many districts presently operate continuation schools and independent study programs, which serve students who are consistently truant, considered to have disciplinary problems, fail classes and fall behind in credits, are pregnant, or are parents. For these students, continuation schools and independent study programs are not real choices.[19] Students can enroll in these programs, attending one-half the time required in traditional schools and therefore graduate. Many such students eventually drop out.[20] This study does not propose that the state change its compulsory attendance laws. We expect that more students will want to remain in school as the proposals recommended throughout the report are implemented, and that continuation schools will eventually become unnecessary relics.

2. **The Options.** *The post-10 option would enable students to choose specialized educational programs such as college preparation, vocational or technical education, fine or performing arts, and others that would develop to meet the needs of the 21st Century. Providers of post-10 options would be public high schools, Regional Occupational Centers, public post-secondary institutions (the California Community Colleges, California State University, and the University of California) and state-authorized private (non-sectarian) postsecondary institutions.*

The state would authorize public and private providers of post-10 options using the following mechanisms:

- **Public Institutions.** Public high schools, community colleges, state colleges, and state universities would automatically receive state approval as post-10 providers.
- **Private Accredited Institutions.** Private institutions accredited by the California Association of Independent Schools or the Western Association of Schools and Colleges would automatically receive state approval as post-10 options providers.

The providers would be free to decide which specialized programs they would offer -- and innovative programs might well result. Standard educational programs would obviously include college preparation and vocational or technical education. Pupils enrolled in these programs could earn college credit while completing credit for their high school diploma. In addition, students might choose to enroll in courses, begin an apprenticeship, or design a program of study which combines classroom learning with an internship. Students might choose to remain in their current high school, enroll in another high school, community college, specialized private academies (dance, art, foreign languages, etc.) intern in a congressional office, accounting firm, or apprentice with an auto mechanic or work with a faculty member on an independent study project.

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[19] SB 65 also allows dropouts to attend private-for-profit educational clinics.

[20] California requires students to attend school full-time between the ages of six and sixteen. Between the ages of 16 and 18 students can satisfy the state requirement for public schooling by attending alternative continuation schools for 3 hours per day. Independent study programs provide more leeway. Students in many of these programs meet for a minimum of one hour per week. An increasing number of students use alternative programs and other high school equivalency options (such as the GED) as a means to complete their secondary education. Almost one-third of individuals taking the GED in 1984 were under 19 years of age (American Council on Education, 1985 as cited in Finn, 1985).

Students might be able to design a two-year plan of study which combines more than one institution or provider. For example, during the first year a student might enroll part-time in courses at a high school and enroll part-time at the local community college. During the second year, the student might decide to enroll full-time at a state or private college or university.

3. **Regulations for Providers.** *Providers of post-10 education could not discriminate on the basis of students' race, gender, national origin, religious background, or physical handicap. Providers of post-10 education would be required to accept a state subsidy as full tuition payment.*

Since post-10 providers would receive public funds, they would be subject to current state and federal laws that proscribe the teaching of racism, sexism and religious or political advocacy. Though providers could establish admission policies, they could not discriminate on the basis of students' race, gender, national origin, religious background, or physical handicap.

Under this proposal, public post-10 education providers would receive a state provided subsidy of the lesser of two amounts -- (a) ninety percent of that fraction of a student's total program taken at the receiving institution multiplied by the state's payment for average daily attendance had the student elected to take his full program at his high school,[21] or (b) the actual state cost for education at the receiving institution. In the case of community colleges for example, the cost of education is substantially less than the ADA allowance for senior high school students. The allowable payment to private post-secondary institutions would be similar to the above conditions, except that instead of actual state cost in condition (b) the state payment would be no greater than the standard tuition at the receiving institution. The state would require institutions and providers to accept the state subsidy as full payment for tuition; no supplementation of these funds would be permitted. This restriction would prevent high cost institutions from attracting wealthy students who could pay for their education using both public and personal funds, thereby discriminating against other students.

Students choosing an option outside of their high school would be eligible to receive a subsidy for transportation. This provision would prevent the possibility of inequality caused by poorer students' inability to afford transportation costs for the post-10 option.

4. **Information for All Families.** *Regional Information Centers would be established and actively provide information to all parents and students about available post-10 options.*

The state would establish Regional Information Centers,which would function as clearing-houses for information on post-10 providers for students, parents, and teachers. These centers also would provide information for parents and students regarding an expanded choice of school options for elementary and secondary schools prior to grade 11. Recommendation 2C discusses these centers in detail.

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[21] Since ADA allowance varies by district and school, the state subsidy would also vary.

RECOMMENDATION 2

ESTABLISH ACCOUNTABILITY BASED ON PERFORMANCE AND CHOICE

To sum it up: the Governors are ready for some old-fashioned horse-trading. We'll regulate less, if schools and school districts will produce better results. . . . It will mean giving parents more choice of the public schools their children attend as one way of assuring higher quality without heavy-handed state control.

Time for Results: The Governors' 1991 Report on Education

California education has drifted toward more centralized control. Federal and state concerns for equal opportunity and affirmative action, Proposition 13's shifting of financing to the state level, and the national movement toward higher standards and accountability have all contributed to this centralization. Whereas broad state direction is necessary and should be further strengthened in some regards, the system is now out of balance.

For example, recent legislative and State Department of Education efforts to improve education implicitly prescribe how education should be delivered -- e.g., what the curriculum should be, how many and what type of courses each student should take, and how many minutes there should be in courses and in the school day, week, and year. These regulations stifle the ability of local schools to adapt their educational methods to the particular needs of students. Schools -- and teachers -- will be more effective if they have the discretion to design their own educational programs.

Rather than prescribing the educational process, the state should set goals for the system, measure how well schools are meeting these goals, institute ways to hold schools accountable for performance, and free educators to meet these goals. These steps would shift the governance of elementary and secondary education toward a system of performance-based accountability.

This chapter proposes the following recommendations to accomplish these goals:

> *Governance should be shifted toward a system of accountability based on local control and parental choice. The state should set performance goals for the system, measure how well schools are meeting these goals, institute ways to hold schools accountable for performance, and require and*

performance, and require and enable districts and schools to provide parent choice. The state also should remove regulations that prevent educators from designing educational programs suited to their students.

2A: Set student performance goals, institute state-wide exit tests, and deregulate schooling

2B: Strengthen school performance reports and intervene in failing schools

2C: Support parental choice of expanded school options

2A: SET STUDENT PERFORMANCE GOALS, INSTITUTE STATEWIDE EXIT TESTS, AND DEREGULATE SCHOOLING

The state should set goals for education in the form of core competencies, and establish required statewide exit tests for all students at grades 6 and 10. As the new system takes hold, state laws and regulations that overly prescribe the educational process (such as state determined graduation, course, and seat-time requirements) should be phased out.

1. **Test Emphasis.** The State Department of Education would develop exit tests and end-of-course tests as challenging subject-matter examinations, emphasizing higher-order skills in core subject areas.
2. **Timing.** Students would be expected to take the exit tests at approximately the 6th grade (the end of elementary education) and the 10th grade (the end of the common high school in the restructured system of education). Students could elect to take the tests earlier, and more than once.
3. **Pass Level.** The state would not set passing levels for the tests, but local authorities could set separate levels of mastery for promotion or graduation. Honors would be given for high grades.
4. **Results Publicized.** Exit test and end-of-course test scores would be aggregated by school and widely publicized as part of School Performance Reports.
5. **Deregulation.** State laws and regulations setting state graduation, course, and seat-time requirements would be phased out when the new tests and other measures are implemented.

A. The Need

An earlier recommendation (1B) proposed that elementary and secondary education focus on helping all students master core competencies needed for a full and productive life in the twenty-first century. This level of expectation is much higher than the current average level of student performance in the state. A new plateau of excellence is needed, and high expectations must be set.

The state has a legitimate and proper role in assuring that public education meets this ideal. How should the state play this role? The answer depends on resolving the most fundamental dilemma in public education: can the state assure that quality education is provided for all students without destroying the local autonomy essential to effective education? For over two decades, state officials in California and across the nation have tried to direct local efforts in order to improve performance or obtain equity. Two general approaches have been used under the current system: state regulation of schooling and student testing. These efforts have not yielded satisfactory results -- the first because regulation is misguided, the second because testing has not been done well.

State Regulation of Schooling

Under the current system, schools and educators are over-regulated and attempts to increase academic standards have further decreased the discretion of educators in designing effective educational strategies. If the goal of student mastery of core competencies is to be a realistic one, educators should be free to design educational structures and processes that accomplish both statewide and local goals. School organization and management, instructional programs, and curriculum should be determined by educators at the school level and not be the subject of state or district regulations.

A number of reforms enacted by the legislature in SB 813 in 1983 dealt with these issues; a central goal of the legislation was to raise educational standards and assure quality control by increasing the number of students studying an academic curriculum. Three reforms in particular: statewide graduation requirements, model curriculum standards, and school day and year requirements, reflect this goal.

Statewide graduation requirements are part of an attempt to restore high expectations for educators and students. They specify the number of years each student must study English, history-social science, mathematics, science, foreign language, art, and physical education in order to receive a high school diploma.[1] Statewide graduation requirements, as well as the entrance requirements of the University of California and California State University, are prime factors in determining what courses schools offer and students take (California State Department of Education, Paths Through High School, 1987).[2]

These requirements are stated in terms of the number of courses a student must take, not how much the student should learn. Students passing a course with the proper name and curriculum automatically get credit for having met the requirement, regardless of their understanding of the material. This dilutes the effect of the requirements on educational standards, and prevents educators from designing educational programs appropriate for their particular students.

Model Curriculum Standards complement the graduation requirements by providing lists of skills, concepts, and knowledge students should learn in required courses, as well as examples of classroom activities that will contribute to student achievement of the standards (California State Department of Education, Model Curriculum Standards: Grades Nine Through Twelve, 1985). School districts are not required to adopt the Model Curriculum Standards, but are required to compare their own curricula with the Model every three years. The California Assessment Program, the statewide testing program discussed below, is being aligned with the Model Curriculum Standards, so that the tests will serve to measure district implementation of the state curriculum (Kirst, 1987).

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[1] Senate Bill 813, Statutes of 1983, Chapter 498, Section 94.

[2] The graduation requirements and university entrance requirements specify numbers of courses in each discipline; the specific courses offered by schools and required for graduation are determined by district course of study requirements (California State Department of Education, Paths Through High School, 1987). The role of districts in regulating school programs is discussed further in Recommendation 3.

This approach is based on an academic, college-preparatory model of education. Rather than identifying skills and knowledge that both college-bound and job-bound students need to know, the Graduation Requirements and the Model Curriculum Standards assume that all students will benefit from a college-preparatory curriculum. Methods for teaching the core competencies should not follow the traditional college-preparatory model. Rather, learning should integrate knowledge and skills from across all disciplines to prepare students to face the full range of life's challenges.

Graduation requirements, university requirements, and the Model Curriculum Standards have had the effect of reducing the unevenness of course offerings across the state and strengthening the curriculum in some districts. But whatever positive impact on quality control this approach may have had, it has also had the effect of maintaining the specialization and compartmentalization of schools, limiting the discretion of educators in designing effective curricula and instructional programs, and contributing to the over-regulation of education.

While education should serve to ensure that all students learn essential knowledge and skills, curricular and instructional programs need to be decided at the local level. When teachers and principals have the discretion to design their curricula and programs, they can take local characteristics into account, and gain a sense of ownership in the process of education that is essential to high productivity and performance (Darling-Hammond, 1987). The Model Curriculum Standards are fine as a model, but as they become a statewide curriculum, they will have the effect of limiting the creativity and innovation of professionals in the field.

Similarly, the minimum school day and year requirements restrict educators from designing innovative ways to structure and schedule academic material. The idea of specifying minimum instructional time is a good one, but current standards prevent educators from designing flexible programs because the requirements are stated in the form of minutes per day and days per year. For example, current regulations prevent educators from providing a flexible day, year-round program for working students.

Student Testing

Student testing can serve a variety of purposes:

- driving educational outcomes by illustrating what should be taught and setting high expectations for student achievement
- contributing to school accountability by providing a measure of school performance
- providing a comparable record of student achievement for evaluation and guidance.[3]

California currently has several testing programs that are intended to meet these objectives, but often work at cross purposes. State tests are being used to prescribe not only the outcomes, but also the processes of education, while district tests generally set minimum expectations for student achievement. And while schools spend a great deal of time testing, none of these tests provide both data on whether schools have taught students essential core competencies, and comparable records of what students have learned (Boysen, 1987).

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[3] Tests serve many other purposes as well, such as diagnosis of student learning problems and student placement; here we are concerned with only the functions of measuring school performance and student achievement.

California's primary statewide testing program, the California Assessment Program (CAP), measures school performance in several basic subject areas. CAP is the only test taken by nearly all students in the state, but does not provide information on individual students. CAP tests are currently administered in grades 3, 6, 8 and 12.

CAP measures both basic and higher-order skills, but its reliance on the multiple-choice format limits the ability of CAP to measure skills such as writing and open-ended problem solving -- skills that would be considered core competencies.[4] The lack of feedback or consequences for individual students and teachers from CAP reduces the motivation to take the test seriously.

CAP tests are being redesigned to measure school performance on objectives contained in the Model Curriculum Standards, reinforcing the effort to implement the Standards as a statewide curriculum and contributing to the increasing centralization of control of education (Kirst, 1987; Honig, 1985). Educational strategies that are effective in teaching students essential skills and knowledge but deviate from the Model Curriculum Standards may result in lowered CAP scores (Cabello, 1984). In this way, CAP discourages educators from designing curricula to suit local needs or trying innovative approaches.[5]

A second state testing program, Golden State Examinations, is being gradually introduced. The Golden States are academic honors achievement tests in specific subjects, such as algebra and U.S. history. However, the Golden States are voluntary for districts and students, limiting their usefulness for assessing schools' performance with all students.

In addition to statewide programs, districts develop or select their own minimum competency tests to assess basic skills under the Pupil Proficiency Law. Districts are required to set passing levels on the tests that students must meet in order to graduate from high school. District tests vary widely in difficulty and quality, rendering them of little value for comparing school or student performance (Boysen, 1987; California State Department of Education, 1980).

The original purpose of the Pupil Proficiency Law was to restore meaning to the high school diploma (Hart, 1981). However, districts tend to set passing levels low enough that few students fail to graduate due to failing the proficiency tests (California State Department of Education, Statewide Summary of Student Performance on School District Proficiency Assessments 1985-86 School Year, 1987). Proficiency tests set low expectations for students and educators, and establish minimum competency, rather than student mastery of core competencies, as the goal of education in many districts (Lazarus, 1981; National Commission on Excellence in Education, 1983).

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[4] Direct writing assessments (essays) have been added to the 8th grade CAP tests, but multiple choice questions still predominate.

[5] See, for example, the Stockton (California) Record, September 10, 1987.

Schools and districts also use a variety of other instruments, typically commercial standardized tests, for student assessment and program evaluation purposes. Like the pupil proficiency tests, these local testing programs differ too much across districts and are often too poorly matched to district curriculum objectives to provide useful information for the purposes of school accountability or recording student achievement (Cabello, 1984). Scores on standardized tests are also subject to manipulation by teaching specific test items in advance, inflating percentile rankings so that nearly all districts are "above average" when compared to earlier national norms (Washington Post National Weekly Edition, February 15-21, 1988).

Educators are concerned with the current amount of testing but districts find it difficult to consolidate programs with different purposes (Boysen, 1987). A Comprehensive Assessment System, designed to integrate each of these testing functions into one system is currently under development. While this system will streamline testing, make testing across districts more comparable, and eventually provide student-level scores on a statewide test, it is largely based on CAP tests which do not currently test student mastery of core competencies and do not adequately measure higher-order skills.

B. Design Details

1. **Test Emphasis.** *The State Department of Education would develop exit tests and end-of-course tests as challenging subject-matter examinations, emphasizing higher-order skills in core subject areas.*

Under this recommendation, the State Department of Education would establish statewide exit tests and end-of-course tests to measure student mastery of core competencies at key transition points in students' education. Exit tests and end-of-course tests would be challenging subject-matter examinations, emphasizing higher-order skills such as critical reasoning and problem-solving in core areas. They would be designed to measure student mastery rather than to rank students, and would provide scores at the individual student level.

Exit tests would test general interdisciplinary skills and knowledge from all core competency subject areas, and would be used in all California public schools. End-of-course tests would measure in greater depth subject-specific knowledge in several core subject areas, and would be optional for schools to use. Examples of subjects for end-of-course tests include algebra, geometry, U.S. history, and biology.

These statewide tests would make much greater use of writing and other open-ended exercises and would rely much less on multiple-choice questions than tests in current use. They would involve demonstrations of higher order skills such as analyzing multi-step problems and writing correspondence to suit various purposes, and could include oral demonstrations of communication ability. This format would require that the tests be graded largely by teachers rather than computers.

The State Department of Education would develop the exit and end-of-course tests on the basis of the core competencies (see Recommendation 1B). Current state testing programs would be redirected to develop the new tests. Golden State Examinations would be redesigned to produce the end-of-course tests and CAP tests would serve as the starting point for exit tests.[6] The new tests would be reviewed by educators from schools across the state and extensively pilot-tested before they were fully implemented.

The new statewide tests would provide much of the information sought by current testing programs. As the new tests are implemented, other testing programs, including CAP, pupil proficiency tests, and many district testing programs, would be phased out. Statewide tests would be an integral part of the Comprehensive Assessment System in order to facilitate the streamlining of testing programs.

2. **Timing.** *Students would be expected to take the exit tests at approximately the 6th grade (the end of elementary education) and the 10th grade (the end of the common high school in the restructured system of education). Students could elect to take the tests earlier, and more than once.*

Exit tests would be required for all students except special education students whose Individual Education Plans provided for appropriate substitutes. Exit tests would be administered at the end of elementary education (generally the 6th grade) and at the end of secondary education (generally the 10th grade). Students would be allowed to take exit tests earlier if they believed they had already mastered the core competencies. Students would also be allowed to take the tests more than once.

End-of-course tests would be administered at the end of each appropriate course or sequence of courses in secondary school, typically in the 9th or 10th grade. Schools that opted to use the end-of-course tests would determine whether the tests were required and whether students could take the tests more than once.

3. **Pass Level.** *The state would not set passing levels for the tests, but local authorities could set separate levels of mastery for promotion or graduation. Honors would be given for high grades.*

School-level Parent-Community Governing Bodies, acting on the recommendation of School Coordinating Councils (see Recommendation 3B) would have the option of setting levels of mastery on exit tests that would be required for students to be promoted from elementary to secondary school or to graduate from secondary school. The state would not require that schools use the state tests for these purposes and would not set passing levels for the tests. Schools that opted to use the end-of-course tests would have the options of setting required levels of mastery on the tests for graduation and of using end-of-course test scores for course grades, but would not be required by the state to exercise either option.

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[6] The Golden State Examination program would require relatively small changes to conform with this proposal -- the range of difficulty of test items would be broadened so that the tests were appropriate for all students, not just honors students, and the exams would include more open-ended problem-solving and writing exercises and fewer multiple choice questions. CAP tests have been evolving in the direction of measuring higher-order skills as we propose, but they would have to be completely redesigned to provide individual student scores and make extensive use of open-ended exercises.

Students who failed to meet the level of mastery required by their school on either exit or end-of-course tests would be allowed to retake the tests. Students would be required to take the secondary exit test in order to be eligible for specialized education under the Post-10 option (see Recommendation 1C). However, schools or districts would not be allowed to deny students access to specialized education based on exit or end-of-course test scores. State honors would be given to students for high achievement on the exit and end-of-course tests.

Schools and districts should also consider developing student portfolios to provide broader records of student achievement. The State Department of Education and Institutes for School Development (see Recommendation 4A) would provide technical assistance to schools and districts that choose to develop student portfolios, but the state would not specify what items to include in the student portfolios. Student Portfolios would be an outgrowth of each student's Individual Learning Plan (see Recommendation 3C). Portfolios might include student exit test and end-of-course test scores, honors and awards, teacher comments or checklists of competencies mastered, and examples of student writing or other work. Portfolios could be created by teachers and students in collaboration and submitted by students to prospective colleges or employers.

4. **Results Publicized.** *Exit test and end-of-course test scores would be aggregated by school and widely publicized as part of the School Performance Reports (see Recommendation 2B).*

5. **Deregulation.** *State laws and regulations setting state graduation, course and seat-time requirements would be phased out when the new tests and other measures are implemented.*

After the core competencies, exit tests and other components of the accountability system, including expanded School Performance Reports, sanctions for failing schools, and parental choice (see Recommendations 2B and 2C) were implemented, state laws and regulations that overly prescribe the educational process would be gradually phased out. The requirement that districts administer pupil proficiency tests and set passing levels for high school graduation would be eliminated. Similarly, the requirement that districts compare their curricula to the Model Curriculum Standards would be removed, and school day and year requirements would be restated in terms of total minutes of instruction per year. When the new system has been fully phased in (after approximately ten years), state high school graduation requirements would be dropped and responsibility for determining graduation requirements would be shifted to school-level Parent-Community Governing Bodies.

We also recommend that the University of California and California State University restructure their entrance requirements to become performance-based, rather than course-based. This might mean using the state exit tests as a substitute for or a supplement to SAT scores.

C. Benefits

Since student mastery of core competencies is essential to maintaining the state's democratic institutions and economic competitiveness, the performance of the education system in achieving this goal is a legitimate and vital interest of the state. Yet schools are community institutions and are ultimately accountable to the members of their communities.

Under these proposals, the focus of state efforts to improve education would be shifted from attempting to prescribe the processes of schooling to defining expected outcomes and deregulating educators. Core competencies and exit tests would take the place of a statewide curriculum and graduation requirements. The state's role would be to set clear goals for education and to help parents and communities hold schools accountable for achieving student mastery of the core competencies.

Exit Tests Raise Standards

Statewide exit tests would be the means by which student mastery of the core competencies became the primary goal of elementary and secondary schooling. Statewide exit tests would set clear and comparable objectives for teachers and schools, regardless of where they are located.

The institution of exit tests for all students would enable the state to set the high standards of literacy needed for full and productive citizenship in the 21st Century. The challenging nature of the tests would drive the quality of instruction and student achievement upward by setting high expectations for students and teachers and motivating higher levels of performance. The tests would help insure that all students learned essential skills and knowledge without making minimum competency the expected level of achievement.

Various forms of exit tests are used in countries around the world, including the main economic competitors of the United States. In this country, the New York State Regents' Test provides one example of an exit testing system that has many similarities to the one proposed here. Many districts have been experimenting with end-of-course and exit tests.

For example, the Pittsburgh district has a Syllabus Driven Examination Project, which was launched in the spring of 1985. The project is intended to combine the best features of European examinations, New York's Regents Exams, and the College Board Advanced Placement Exams. The examinations are taken by all secondary students in each major academic course, and are administered on a quarterly basis. They are given over two days, and include multiple choice, short answer, and long answer essay questions.

The exams are based on syllabi provided to the students which lists the objectives of each course. The exams avoid many of the problems of European examinations by gauging student progress towards learning outcomes on the syllabus, rather than making only pass-fail judgments. The exams are also only one of several criteria in determining course grades. Students are provided with sample exam questions and practice taking the tests beforehand. Because of the higher order nature of the questions, the exams are designed to allow for teacher flexibility and creativity in teaching the material rather than promote memorization and drill.

The primary reason for the Syllabus Driven Examination Project is to raise academic standards for all students. The exams and syllabi are expected to influence the nature and quality of classroom instruction. They place a premium on the ability of students to analyze and synthesize knowledge and to express that knowledge in response to a challenging essay question.

The exams borrow the idea of a Document-Based Question from the Advanced Placement exams. These questions provide reading material that presents several points of view on a theme or issue. Students read the documents and write an essay that requires them to analyze the documents and synthesize a response. Students are expected to cite evidence from the text provided and from other sources. The questions assess both the general knowledge of the students and their ability to think critically.

The program is an outgrowth of earlier efforts to emphasize the development and monitoring of writing and critical thinking skills. These involved achieving consensus on important learning outcomes, identifying new instructional materials and methodology (classroom discussion is emphasized), preparing syllabi, conducting teacher inservice training, and developing the exams. Parent reaction to the program has been positive, in particular to the clear objectives stated on the syllabi. Teacher reactions have been mixed; some required extensive training to develop their discussion-leading skills.

Exit Tests Provide True Measures of Student Achievement

Exit test scores would serve as part of a record of achievement for each student, making a high school diploma more meaningful. They would, for the first time, provide an understandable statewide measure of performance for students to judge how much they know and for parents, employers, and college admissions officers to judge student accomplishments and school performance. Secondary schools could use the results from such a test given at the end of elementary school to assess students' strengths and weaknesses. Because of the importance of the results, students would be allowed to take the exit tests more than once. The state would award honors to students with outstanding scores onthe test as an added incentive for high-level achievement.

Statewide tests would have to be of the highest feasible quality if they are to meet these goals. In order to adequately measure higher-order skills, the tests will need to go beyond the limits of the multiple choice format and make much greater use of writing and problem solving exercises than tests in current use. They would require a format considerably different from the usual computer-scored test. Items on the test would be sufficiently general and open-ended in nature so that teachers could not "teach to the test" without actually teaching what students should be learning -- generally applicable skills and knowledge rather than narrow facts.[7]

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[7] Considerable work is being done around the country to design a new class of tests that would measure higher-order skills (Brown, 1987; Ward, 1985).

The state would not set passing scores for the exit tests, nor would it require districts or schools to use passing scores on the tests as graduation or promotion requirements. If this were done, many districts would set low passing scores in order to assure a high success rate, as they have done with the pupil proficiency tests. This would reduce the level of expectations set by the exit tests and contribute to the regulation of schooling by the state. However, school-level authorities that want to establish high standards for students by setting high levels of mastery for student promotion or graduation would have the option of using the tests for these purposes.

Exit Tests and Portfolios Proposed by Carnegie Foundation. Boyer (1983) suggested that every student's English language and mathematics achievement be assessed the year before high school. Students needing special assistance would receive it in a special summer term and through high school.

Arguing that the Scholastic Aptitude Test (SAT) is inadequate as a measure of student achievement, Boyer proposed replacing the SAT with a Student Achievement and Advisement Test (SAAT) for all students. The SAAT would measure more accurately what the student has learned in the core curriculum and provide information to the student that would be useful in making future choices. SAAT scores would be accompanied by carefully constructed teacher evaluations, student-prepared portfolios containing academic and vocational work samples, a student interest inventory, and the product of a Senior Independent Project.

Connecticut Institutes Statewide Mastery Tests. In 1986, Connecticut replaced its statewide ninth grade basic skills test with the Connecticut Mastery Testing Program. The new tests, which will also replace commercial standardized achievement tests that are currently required, are given in grades four, six and eight. They test student mastery of state objectives in reading, writing and math, emphasizing higher-order skills. Both objective and essay questions are included. The purposes of the test are:

- earlier identification of students needing remedial education;
- testing a more comprehensive range of higher order academic skills;
- higher expectations and standards for student achievement;
- more useful achievement test information about students, schools, and districts;
- improved assessment of suitable equal educational opportunities; and
- continuous monitoring of students in grades four, six, and eight.

The Connecticut Mastery Testing Program provided the opportunity for Connecticut educators to address several limitations of the existing state and local programs. The new tests are intended to provide instructionally relevant assessments that can provide direct guidance to the classroom teacher. The tests are administered in early fall so that test results are more useful to teachers while the students are still in the same classroom.

The tests are based on clear-cut standards for student mastery of educational objectives. For example, the fourth grade mathematics test has 25 objectives with four items per objective; at least three items correct per objective are required for mastery. The criteria for selecting objectives were that the learning outcomes be significant, developmentally appropriate, teachable, and reasonable for a majority of students to master. Students who score below state-set standards are provided with remediation; eighth graders who fall below the standards are retested in those areas until they pass or until they graduate (there is no diploma sanction connected to test).

A major effort was made to infuse thinking skills into the testing program. Test-makers in Connecticut sought the advice of philosophers, cognitive psychologists, and educational psychologists on how to measure important critical thinking skills. Students are expected to be able to infer, integrate, evaluate, apply knowledge to new situations, condense information, synthesize several pieces of information, solve problems requiring several steps, and develop a point of view and support it with sufficient evidence. Fourth graders are asked to judge the authority of evidence in support of a stated opinion, to recognize consistency of tone, to write narrative, explanatory and persuasive essays, and to identify information needed to solve problems.

Exit Tests Replace Regulation of the Education Process

Exit tests would be a key link in establishing performance-based accountability without prescribing the educational process. Consequences for schools' performance on the tests would make tests the driving force for improved education for California's students. The tests would serve to transform core competencies into concrete goals for elementary and secondary education, but since the tests would not be based on a statewide curriculum, they would not tell educators what they must do to have students perform well on the test. Other forms of regulation and compliance monitoring would be both unnecessary and counterproductive.

With a reliable and comparable measure of performance in place, regulations that inhibit local innovation could be phased out. Decisions about graduation requirements could be shifted to the school level. The requirement that districts compare their curriculum to the Model Curriculum Standards could be dropped making them truly a model. Universities could state their entrance requirements in terms of competencies mastered rather courses completed; students and teachers would have stronger incentives for high performance and universities would have better information for evaluating applicants. Restating minimum instructional time requirements in terms of total minutes per year would allow educators to design nontraditional programs to better serve student needs.

National Movement to Deregulate Schools Gaining Momentum. The need for a shift in the state role in education to setting goals, holding schools accountable, and deregulating educators has been widely recognized around the country. The Carnegie Forum on Education and the Economy, in its 1986 report, *A Nation Prepared: Teachers for the 21st Century*, called on policymakers to restructure schools to provide a professional environment for teachers, freeing them to decide how best to meet state and local goals for children while holding them accountable for progress:

> If states and districts want improved performance, their policymakers must spell out a limited number of clear goals and eliminate less important existing requirements. Insofar as possible, measurements of school and student performance should be used to assess progress toward stated goals for students. Measurements should not be limited to standardized achievement tests. They should include such yardsticks as

> rates of attendance, dropping out, job placement, and college acceptance. While standardized tests of basic skills and the acquisition of facts have their uses, they need to take second place to more sophisticated measures of a range of higher order cognitive processes (p. 91).

In their widely-read report, Time for Results: The Governors' 1991 Report on Education, the members of the National Governors Association said they were "ready for some old-fashioned horse-trading. We'll regulate less, if schools and school districts will produce better results (p. 3)." Included in the Governors' Action Agenda was establishing a new social compact in cooperation with educators, parents, community members, and the state. The compact would feature clear, measurable goals for students and schools established by the state and reduced state requirements that limit the ways in which local districts and individual schools help their students achieve the expected levels.

Several states including California, allow individual schools or districts to obtain waivers from specific state regulations that impede innovation on a case-by-case basis. Illinois, Kansas, Massachusetts, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Oregon, and West Virginia have such provisions on the books; New Hampshire has waived requirements since 1920. Yet in California these opportunities are rarely used: most waiver requests to the State Board of Education are for relatively inconsequential matters such as the scheduling of school holidays.

However, the National Governors Association reports that "we are now beginning to see state pilot projects to waive school regulations for the purpose of encouraging autonomy at the school site. These pilot efforts are intended to identify and waive regulations that impede site management, give schools their fair share of funding, promote new cooperative working relationships, and provide time for the demonstrations to show results" (National Governors Association, 1987).

Washington enacted such a program, Schools for the 21st Century, in 1987. The pilot will allow up to 21 schools to apply for exemption from many state regulations while requiring that the schools be accountable for student performance. Additional funding is available to help pilot schools create innovative programs. The program intends to encourage educational creativity, professionalism, and initiative by providing schools an opportunity to develop new methods and procedures. Colorado and Minnesota have similar pilot programs in place, and Alabama, Delaware, Massachusetts, Mississippi, Pennsylvania, and Texas are considering such a move. New York is weighing a plan to reduce restrictions on the use of state aid in return for improved school performance (National Governors Association, 1987).

End-of-Course Tests Measure Achievement in Greater Depth

End-of-course tests would measure student mastery of subject matter in core subjects in greater depth, providing educators with more feedback on the success of their instruction with specific students or groups of students. The tests would provide a comparable measure of teacher performance in specific courses. Accountability could be brought to the teacher level for teachers of courses with end-of-course tests. Student performance on end-of-course tests could be used as criteria in evaluating teacher or teacher team performance. End-of-course tests would also provide more detailed records of student achievement to complement the exit tests. End-of-course tests would be optional for schools to use so that the tests would not constrain educators from designing nontraditional courses or instructional programs for which the state tests were inappropriate.

New York State Testing Student Achievement for Over 120 Years. The Regents Examinations have been given in New York since 1865. They are statewide end-of-course achievement tests given in approximately 25 subjects in grades nine through twelve. The purposes of the exams are to evaluate achievement and progress, establish and maintain standards, provide a supervisory tool for improving instruction, and serve a guidance function.

Regents Examinations are given each January, June, and August, generally in college-preparatory classes. The exams are based on state syllabi for those classes. The exams are optional for both public and private schools, but nearly all public school districts require the exams. A few districts whose academic programs are either much more demanding or much less demanding than the Regents standard do not offer the exams.

Students who pass a specified number of Regents Exams, and who complete 18 units of study rather than the state minimum of 16, earn a prestigious Regents High School Diploma. The state also gives honors for scores above 90 percent on the exams. Students who do not take courses offering the Regents Exams are still eligible for local district diplomas.

The Regents Exams are developed by committees of classroom teachers and are reviewed and pretested before use. Teacher comments on prior exams help guide the development of new exams. Scoring is done by teachers at each high school using a state-provided answer key. The state sets a passing level of 65 percent correct. A representative sample of papers is also scored by the state as a check on local scoring procedures.

The Regents Exams have been credited with increasing academic standards and consistency across the state. However, changes could be made in the model that would produce greater benefits. All students should take the exams so that they do not contribute to the tracking of students, and the exams should focus more on measuring higher-order thinking skills so that teachers do not have an incentive to rely on rote memorization and drill.

Student Portfolios Complement Tests

Student portfolios are intended to complement statewide tests in serving their function as records of student achievement. While test scores serve as important measures of what students know and can do, there are many important student achievements and attributes they cannot describe. Student portfolios could provide a broader and richer portrait of the individual student.

Making assistance available to schools and districts for the development of student portfolios would enable interested educators to create portfolios suited to their local situation. No statewide model for student portfolios would be developed because the use of student portfolios is a relatively unfamiliar concept in the United States that needs research and development, and because schools and districts should be free to tailor student portfolios to complement their instructional program and student needs.

Europeans Adopting Student Portfolios. Educators in Great Britain have been using student portfolios, called records of achievement, in higher education for several years and are now introducing them to secondary schools. Records of achievement are intended to provide a broad record of student achievement and attributes, reducing reliance on single examination scores. The records consist of an extensive report of each student's achievements in academic, practical, and sometimes social and personal areas, often in the form of a series of standard descriptions or checklists of skill acquisition or task mastery. The records are completed by students and teachers working together, and students have a voice in selecting items to include. France has gone even farther than England in replacing many external exams with more continuous teacher-controlled assessment systems similar to records of achievement.

2B: STRENGTHEN SCHOOL PERFORMANCE REPORTS AND INTERVENE IN FAILING SCHOOLS

The current system of School Performance Reports should be strengthened, and the state should establish a process of intervening in failing schools.

1. **School Performance Reports.** School Performance Reports would be distributed to parents in an accessible form, and Regional Information and Referral Centers would be supported to interpret the reports.

2. **Identification of Low-Performing Schools.** The state would establish a process for intervening in chronically low-performing schools which would identify three classes of schools: Class I (high or adequately performing), Class II (inadequately performing), and Class III (chronically low-performing or failing). These designations would be based on a broad range of school performance data published in School Performance Reports, plus input from the local community solicited in public hearings.

3. **District Responsibility.** Districts would be required to design and receive approval to implement an improvement plan for Class II and III schools. To facilitate hiring or transferring staff at Class II and Class III schools, districts would be released from some personnel, due process, and collective bargaining agreements.

4. **Additional Funding.** Class II schools and Class III schools would be eligible for additional state funding if the state determines that inadequate funding has contributed to their failure.

5. **Parental Choice.** Parents with students in Class III schools would have the absolute right to transfer their children out of these schools and have other options made available to them.

A. The Need

The purpose of an accountability system is to improve the quality of education by providing schools with incentives to focus instruction on important goals. An effective statewide accountability system would function as a loop: schools would report raw performance data to the state, the state would report comparative results to the schools and to the community, and the schools and community members would use the information (together with locally-collected performance data) to evaluate results and plan for needed change.

Currently in California, the loop is incomplete. The most essential indicator of school performance, student mastery of core competencies, is not adequately measured. Useful performance results are not reaching many educators and parents. Centralized authority and regulation limit the discretion of educators to redesign structures, instruction, and curriculum. Structural and cultural barriers inhibit parents and community members from becoming involved in their schools. Parents cannot voice their dissatisfaction with schools by moving their children to another school. There is no process of intervention in schools that chronically fail. Without consequences for failure, schools are not being held accountable for achieving their goals.

Performance Reports

While California Assessment Program (CAP) test scores are the primary tool for measuring school performance under the current system, the tests are part of a larger accountability system. The State Department of Education annually issues a Performance Report for each school which, in addition to CAP scores, contains dropout rates, data on academic course enrollments, student performance on the SAT and other college entrance examinations, and grade point averages of school graduates at the University of California and California State University. Measures of attendance, vocational education quality, and extracurricular activities will be added to the Reports in the near future. Performance Reports are distributed to school districts and the media. School and districts are also encouraged to develop local performance reports containing additional measures of school processes and outcomes.[8]

Performance Reports are intended to contribute to school improvement by providing feedback to educators and by generating pressure for school improvement from the community (Fetler, 1986; Haertel, 1986). However, several problems with the Performance Reports contribute to their ineffectiveness in making schools accountable.

The information in the Performance Reports has been limited to areas where the State Department of Education already has access to sources of data (Fetler, 1986). The limited availability of school performance information has constrained what the Performance Reports can deliver. For example, there are no statewide sources of data on college acceptance or job placement rates of high school graduates.

Because of their reliance on California Assessment Program (CAP) scores, the Performance Reports inherit the problems of the CAP tests (see Recommendation 2A). CAP fails to address the key issue of relevance to teachers -- whether students have learned core skills and knowledge. And like CAP, measures of academic course enrollments included in the Performance Reports contribute to the regulation of schooling by pressuring educators to conform to a college preparatory model of education rather than allowing educators to design innovative instructional programs to serve all students. By measuring course enrollments, the state goes beyond holding schools accountable for results to prescribing the process of education.

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[8] Measures suggested by the State Department of Eduction for local performance reports include quality of the instructional program; nature of the learning environment; amount and quality of writing; amount and quality of homework; number and types of books read; community support and parent participation; awards and recognition achieved by students, teachers and the school; participation in extracurricular activities; and the nature and quality of support for students with special needs.

The School Performance Reports focus on measures of academic achievement of college-bound students that do little to help hold schools accountable for results with *all* students. Several quality indicators use student scores on the Scholastic Aptitude Test (SAT). Students who take the SAT are not a representative sample of all students, and the SAT purports to measure student aptitude for postsecondary education rather than what students have learned in school (Haertel, 1986; Ravitch, 1983-84). This emphasis is in part due to the data problems discussed above: little information on the performance of students who are not college-bound is available.

Like any other system, school performance is affected by the quantity and quality off the resources that are put into it. Resources are not equitably distributed among California schools; available evidence suggests that schools with high proportions of minority students have less to spend per pupil, are staffed by teachers with less education and experience, and are not maintained as well as other schools (Achievement Council, 1984, 1988). Since the Performance Reports contain no measures of education inputs, such as per-pupil expenditures or quality of materials, they serve to hold schools with unequal resources accountable for achieving equal results.

The reports are not widely distributed within schools; in fact, many educators never see the Performance Report for their school. In order to be useful to educators, the data from the Performance Reports should be integrated into school and district management. Performance data should be used to establish objectives and determine whether those objectives have been achieved; this is not the case in most localities.[9]

The Performance Reports are not distributed directly to parents of students; the state relies on the news media to publicize the reports. In part due to language barriers, the media are inadequate vehicles for disseminating performance information to many parents, particularly in low income and minority communities. Performance results can be a tool for parents to effect changes in their schools, but performance results are least likely to reach those communities whose schools are in greatest need of improvement.

Failing Schools

Some schools throughout California have been chronically at the bottom of every measure of school performance. Their students are usually from poor, non-English speaking, and minority backgrounds. Parents are locked into these schools and feel very frustrated. Districts with failing schools are not accepting their responsibility to provide an effective education for all students, but there are currently no sanctions or provisions for state intervention in low-performing schools.

Minority and poor children are increasingly being educated separately from other students. The proportion of minority students that attend schools where minorities predominate -- racially isolated schools -- increased from 49 percent in 1967 to 70 percent in 1984. The number of racially isolated schools in the state increased from 987 to 2,694 during the same period, and by 1987, over 20 percent of the state's schools had enrollments that were at least 60 percent Hispanic and Black (Achievement Council, 1988).

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[9] John McCoy, Program Evaluation and Research Division, California State Department of Education, personal communication.

Many of these schools are failing to provide an effective education for their students. An analysis of student performance data by the Achievement Council (1988) found that:

- Hispanic and Black students achieve about six months behind other students in primary grades, about one year behind by sixth grade, and about two years behind by eighth grade;
- As minority students progress through the grades, increasing proportions score at the lowest levels and decreasing proportions score at high levels;
- In high schools with the largest concentration of Hispanic and Black students, students graduate with about the same skill levels as the students entering ninth grade in many suburban schools;
- Most of the predominantly Hispanic or Black high schools in the state scored in the bottom 20 percent of all California high schools;
- In 1987, the dropout rate for Hispanics was 45 percent; for Blacks, 48 percent;
- In Oakland, 81 percent of Hispanic and 75 percent of Black high school juniors had grade point averages below 2.0 in 1986. Fewer than 10 percent of Black eighth graders in Los Angeles County have grade averages above 3.0.

The students in these schools are often cited as the reason for low school performance. But there are numerous examples of effective schools with predominantly poor and minority pupils:

- Sweetwater High School in San Diego County, a predominantly low-income Hispanic school, eliminated remedial math, auto shop, and home economics classes; increased enrollment in advanced math and sciences, created a study-skills and tutorial program for mid-range students, and established an independent study program for dropouts. In 1987, Sweetwater had the highest number of students in the district taking the SAT and the graduating class earned $1.3 million in scholarships and grants.
- Claremont Middle School in Oakland had a reputation as a dumping ground for low-achieving students, low teacher morale, and many discipline and racial problems. To turn the school around, the staff eliminated low-level courses and the labels like "slow learners" that go with them. A lab for low-achieving students was turned into a computer center for all students. In three years, the school's eighth graders jumped from the 36th percentile to the 70th on a widely used standardized test.
- Bell Gardens Elementary School in the Montebello Unified School District has a 40 percent student turnover rate, an average class size of 32, and an almost entirely low-income Hispanic student body entering school with very limited English skills. However, with a goal of English proficiency by the end of fourth grade, a curriculum that concentrates on developing high-level thinking and information processing skills, and strong emphases on staff development and parent involvement, the school's test

> scores have been rising. Fourth grade students who have participated in the new curriculum for at least two years are reading English at much higher levels than students in other bilingual programs (The Achievement Council, 1988).

These examples demonstrate that the students in failing schools are not the problem, the schools are.

Reform Reports Call for Intervention Plans. Several of the most influential reform reports issued in the last two years have called for some form of intervention in failing schools as a last resort:

- National Governors Association, Time for Results: the Governors' 1991 Report on Education, 1986.
- Carnegie Forum on Education and the Economy, A Nation Prepared: Teachers for the 21st Century, 1986;
- American Federation of Teachers, The Revolution that is Overdue, 1986;
- American Association of School Administrators, Let's Discuss the Issues: AASA Positions Statements, 1987.

In the words of the Carnegie report, "Governing authorities will have to develop means to assure themselves that students are making satisfactory progress toward agreed upon goals and be prepared to take action to reduce teacher discretion or change the makeup of school leadership team if student learning falls substantially below expectations." As the Governors pointed out, the "procedure is aimed at organizational conditions, not teachers."

Academic Bankruptcy Programs In Place. The issue of how states should respond to schools or districts that chronically fail to meet their responsibilities to students and parents has been receiving increased attention around the country. Seven states currently have provisions for intervention in academically deficient schools or districts; several others have performance-based accreditation standards without the intervention sanction. The process for state intervention in academically bankrupt schools or districts is usually tied to the states' function of accrediting schools. While these provisions are not used frequently in any state, the attention these laws receive serves to reinforce state expectations for school performance.

In New Jersey, districts are monitored on 10 general criteria: planning, school/community relations, comprehensive curriculum and instruction, attendance, facilities, professional staff, mandated programs, basic skills achievement, equal educational opportunity and affirmative action, and financial soundness. A district that meets standards in these areas during Level I (regular) monitoring is certified for five years. If not, the district is moved to Level II monitoring, where it is required to complete a study of the problems and correct them. If a district still fails to meet standards, it is moved to Level III, which consists of several phases:

- Preliminary Review: an external committee of educators from outside the district and from the State conduct a preliminary review and issue findings and directives;

- Corrective Action Plan: based on committee findings; if the school is still not successful –
- Comprehensive Compliance Investigation: complete management and financial audit by outside agency;
- Order to Show Cause: district must demonstrate why State Commissioner should not recommend state takeover;
- Receivership: a state-appointed monitor must approve the district's major decisions.

New Jersey recently took control of the Jersey City School District using this process.

Texas' program is similar, except that there are two levels of state intervention at the end of the process. Districts that receive a state monitor must have superintendent and board decisions co-signed by the monitor. A state master, on the other hand, administers in the district without regard to the board or superintendent.

In South Carolina, districts which do not meet two-thirds of minimum standards on student test scores and three-fourths of accreditation standards in such areas as teacher attendance and dropout rates are classified as "seriously impaired" school districts. A state committee is established to review the district's educational program and to develop a plan for correcting the deficiencies. If the plan is not successfully implemented, the state superintendent may declare an emergency. State funds are withheld upon approval by state legislature education committees. The Governor may also declare the office of the district superintendent vacant and appoint an interim replacement until the position is permanently filled by the local board of trustees.

Georgia has the authority to assume responsibility for academically deficient districts after the district has had a reasonable period to correct problems. The state may also require the district to increase local funding for education. If failing school districts in Kentucky do not develop and implement school improvement plans, the state may limit the authority of the local superintendent and school board and assume those responsibilities.

In New Mexico, districts may be taken over by the State Board of Education if they are unable to meet state standards. A state-appointed monitor is appointed to oversee the school district. Ohio conducts regular five-year evaluation cycles of school districts; the district and state together develop a plan to correct any deficiencies. If the plan is not successfully implemented, the state may initiate proceedings to revoke the district's charter.

B. Explanation of Recommendation

1. **School Performance Reports.** *School Performance Reports would be distributed to parents in an accessible form, and Regional Information and Referral Centers would be supported to interpret the reports.*

Under this recommendation, results of statewide exit tests and end-of-course tests would be included in the School Performance Reports. Measures of academic course enrollments would be dropped from the performance reports after the new test results were incorporated. In addition, the State Department of Education would develop measures of school inputs, such as expenditures per pupil, to include in the Performance Reports.

To insure adequate dissemination of the information, every teacher and principal would receive a copy of her or his school's Performance Report. The State Department of Education would develop a simplified, understandable version of the School Performance Report in each language spoken by a significant number of families. These reports would be delivered to all parents of students. The State would provide Performance Reports for local schools to Regional Information Centers to be used in counseling parents on school choices (see Recommendation 2C). The information centers would focus on providing information on school performance and parent options to poor and limited-English-speaking families.

2. **Identification of Low-Performing Schools.** *The state would establish a process for intervening in chronically low-performing schools which would identify three classes of schools: Class I (high or adequately performing), Class II (inadequately performing), and Class III (chronically low-performing or failing). These designations would be based on a broad range of school performance data published in School Performance Reports, plus input from the local community solicited in public hearings.*

The state would establish a process for intervening in chronically low-performing schools which would identify three classes of schools: Class I (high or adequately performing), Class II (inadequately performing), and Class III (chronically low-performing or failing). Intervention in Class II and Class III schools would take place in three phases.

- **Phase I**: The State Department of Education would identify schools that were *potentially* Class II or Class III based on a broad-range of school performance data published in School Performance Reports. The criteria for these preliminary identifications would be determined by a task force of the State Board of Education.
- **Phase II**: The State Department of Education would establish Review Committees of educators, parents, and community leaders to evaluate each school that was identified as potentially Class II or III. The committees would hold public hearings to obtain the input of parents, community members, and educators associated with the identified schools. The hearings would focus on the problems at the schools and suggestions about what needed to be done.

- **Phase III**: Based on the recommendations of the Review Committees, the State Department of Education would designate Schools as Class I, II, or III. Actions to be taken in Phase III are discussed below.

Review Committees would continue to monitor Class II and III schools. If a designated school's performance subsequently improved to above the established thresholds, the State Department of Education, acting on the recommendation of the Review Committee, would designate those schools as Class I and state interventions would end.

The Review Committees would be appointed by the State Department of Education. Their members would constitute a balanced representation of educators and citizens that reflect the diversity of students in their assigned region.

3. **District Responsibility.** *Districts would be required to design and receive approval to implement an improvement plan for Class II and III schools. To facilitate hiring or transferring staff at Class II and Class III schools, districts would be released from some personnel, due process, and collective bargaining agreements.*

Districts would be required to design and implement an improvement plan for Class II and III schools. Improvement plans would be subject to the approval of the school's Review Committee and could include changes in funding, personnel, instruction, curriculum, special services, schedules, or other policies. The State Department of Education and Institutes for School Development (see Recommendation 4A) would provide technical assistance in designing school improvement plans.

As part of its improvement plan, a district could request exemptions from personnel, due process, and collective bargaining agreements that would prevent the district from dismissing, hiring, or transferring personnel at Class II and Class III schools. Review Committees would approve, disapprove or negotiate these requests according to guidelines specified in state legislation.

4. **Additional Funding.** *Class II schools and Class III schools would be eligible for additional state funding if the state determines that inadequate funding has contributed to their failure.*

As part of its improvement plan, a district could request additional state funding for Class II and Class III schools. The district would be required to demonstrate why this funding could not be provided by reallocating the district's regular funds. Review Committees would approve, disapprove or negotiate these requests according to guidelines specified in state legislation.

5. **Parental Choice.** *Parents with students in Class III schools would have the absolute right to transfer their children out of these schools and have other options made available to them.*

Districts would be required to find or create alternative sites for students requesting transfers from Class III schools. Districts would be authorized to contract with other districts or with private education providers to provide effective schooling for these students.

If a Review Committee finds that the district has failed to make prompt and satisfactory arrangements for accommodating transfer requests, the State Department Education would provide these students with the means to attend any public or (non-sectarian) private school of their choice.

Parents from chronically failing schools also would be given the right to form a new school, provided that parents and teachers representing 30 students submitted a plan to the Review Committee and the plan were approved.

C. Benefits

The vitality of the K-12 system rests on the public's confidence that all public schools offer an effective education. California's system of education should give even greater assurance in the future that all public schools will deliver quality education. These proposals address the need to hold schools and districts accountable for student performance, regardless of the makeup of their student bodies, by having the state strengthen reporting on school performance and intervene in failing schools.

These proposals would make the current accountability system more effective in improving the performance of the education system. New measures of school performance would be developed for the School Performance Reports and the Reports would be more widely distributed to educators and parents. As a last resort, sanctions for inadequate school performance would be established. These steps will complete the loop and make school accountability meaningful.

Information on School Performance Promotes Accountability

California is a leader in developing School Performance Reports. However, today parents do not receive the reports, and for many parents they would not be understandable. This proposal would institute state dissemination of performance reports directly to parents, and state support of Regional Information and Referral Centers to help parents understand the reports so that appropriate local action could be taken.

Developing a simplified and understandable version of the Performance Report and disseminating these directly to parents would address the wide variation in parent information levels that result from relying on news media to do the job. These Reports would be developed in each language spoken by a significant number of parents.

Parents and community members would be able to use school performance information to assess the effectiveness of their schools. They would be better equipped for becoming involved in their schools and for making choices among schools.

Regional Information and Referral Centers (see Recommendation 2C) would also serve as sources of school performance data for parents. The Centers would insure access to information through an aggressive outreach effort. Information Center staff would interpret school performance information and counsel parents on opportunities to get involved in improving their schools and on parent options for selecting other schools.

Performance Reports Provide Feedback to Educators. In order to be effective in improving the quality of education, school performance information must be widely distributed within the schools as well. All educators would receive the Performance Report for their schools as feedback on their collective efforts. Performance data would be available to set objectives and monitor progress.

Mt. Diablo Unified School District, located in Contra Costa County, provides an example of effective use of school performance data by educators. The district has developed its own school accountability system that makes use of performance information provided by the state, the district, and schools. Each school develops a School Performance Plan that spells out specific objectives for school processes and outcomes. The purposes of the School Performance Plan are to provide a process for the principal to clearly define and articulate the mission of the school, and to provide a means of measuring progress in fulfilling that mission.

The district encourages the inclusion of personalized local school site quality indicators to include in the Performance Plan. The measures of school site indicators, together with district and state data, are used to monitor progress in meeting the objectives on an ongoing basis. The principal is responsible for completing the School Performance Plan and updating it annually. Principals are strongly encouraged to involve their staff and parents in the development of the plan.

At the district level, high schools are ranked on 21 factors based on state and district data, which include:

- twelfth grade CAP scores in reading, written expression, and math
- district proficiency test scores in reading, writing and math
- academic course enrollments in math, science, history, foreign language and fine arts
- two indicators of school library use
- student attrition in grades nine to twelve
- percent of seniors taking the SAT
- percent of seniors reporting two or more hours of homework per day.

A similar set of indicators is used for elementary and middle schools. Based on these factors, school site quality indicators, the performance of feeder schools, and student characteristics, district administrators make a holistic judgement as to whether a school was meeting, exceeding, or failing its expectations. The district sets expectations and provides technical assistance to failing schools.

New Measures Provide More Meaningful Information. Student test scores would continue to be the primary indicator of school performance. Statewide exit test scores would replace CAP and SAT scores in the Performance Reports as the new tests are implemented. The exit tests would be designed to measure whether students had learned essential concepts and skills. The Performance Reports would serve as a vehicle for the exit tests in focusing the goals of schooling on student mastery of core competencies without prescribing the processes of education.

Measures of academic course enrollments would be phased out to reduce central control of the processes of education. The desire and ability of educators to improve education by creating new forms and structures of schooling would not be constrained by accountability measures. Other measures of school outcomes, such as dropout rates, would be retained to ensure that schools do not focus their efforts on high achieving students at the expense of others.[10]

School Performance Reports would also measure educational inputs, such as per-pupil expenditures and qualifications of the teaching force.[11] Holding schools accountable for equal outcomes when they have unequal resources is unjust. Including measures of inputs in the Performance Reports would bring attention to schools with inadequate resources and put pressure on districts to remedy the situation by devoting more resources to those schools.

Schools and districts would continue to be encouraged to develop other measures of performance to be measured and disseminated locally. These measures would reflect local goals for education and might include college acceptance rates for school graduates, job placement rates, or student and teacher attitudes about the school.

More States Issuing School Report Cards. While California is a national leader in the development of school performance reporting, the efforts of other states may suggest some directions for California to take in the future. School report cards, educational quality indicators, statewide summaries of the condition of education, and a number of other information tools have appeared around the country as concern for school accountability has heightened. Since 1984, at least 23 states have modified or added laws that increase the reporting of education information to the public. Fourteen states now issue some kind of school performance report, and such programs are under consideration in at least two more states.

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[10] Another way to do this is to report a school's distribution of test scores rather than just an average score (this is currently done with CAP scores in the Performance Reports). Average scores can be raised by focusing attention on high-achieving students while neglecting others.

[11] The California Teachers Association has proposed that schools be monitored on per-student expenditures and types of services funded; out-of-field teacher assignments; quality and age of textbooks and materials; availability of qualified counseling and support services; availability of qualified substitute teachers; safety, cleanliness and overall adequacy of facilities; character of evaluation procedures and opportunities for professional growth; climate for learning including classroom discipline, teacher training and staff improvement; and quality of administration.

Ohio's State Board of Education adopted Indicators of Progress in May 1984 based on the recommendations of the state's Commission on Excellence in Education. The Indicators cover twelve major areas of educational concern and are measured by 24 factors. The measures include:

- percent of high school graduates completing a college preparatory curriculum;
- American College Testing program scores;
- percent of high school graduates completing a vocational education curriculum and the percentage of vocational education graduates placed in jobs;
- number of adults passing the General Educational Development (GED) test;
- average daily attendance;
- dropout rates;
- school employee attendance rates;
- percent of districts that provide office hours and answer phones at hours that accommodate working parents;
- percent of districts that maximize opportunities for working parents to participate in conferences;
- percent of districts that contact parents of students who are absent or doing poorly;
- percent of districts that provide meaningful homework; and
- percent of districts that provide assistance on homework beyond the regular school day.

The results are reported to the Governor, members of the General Assembly, school districts, education-related organizations, and interested citizens, but data is collected only at the district and state levels, not at the school level.

Florida's Accountability in Curriculum, Educational, Instructional Materials, and Testing Act of 1984 requires the commissioner of education to issue annual reports to the legislature, districts, schools, and the public on the conditions of education at state, district, and school levels. The reports include information on: 1) how well instructional programs enable students to meet minimum performance standards, 2) comparisons of Florida with other states and comparisons of regions and districts within the state using standardized tests, 3) evaluation results of education programs, 4) the needs of education, 5) state education policy issues, 6) actions taken at the state level, and 7) recommendations for further action. Included in school-level reports is information on the schools' budgets and needs, and student, parent and community attitudes towards the school.

School District Report Cards in Illinois were mandated by the state's 1985 Reform Law. The Better Schools Accountability Program requires each district to report to parents, taxpayers, the governor, the general assembly, and the state board of education on school and student performance. Like California, the district reports have both state- and locally-developed components. Quality indicators include student performance on standardized tests, attendance and graduation rates, average class size, percentages of students in core, college preparatory, and vocational courses, and the proportion of the school day devoted to core subjects.

Intervention in Failing Schools

As an earlier section showed, some schools throughout California have been chronically at the bottom of every measure of school performance. Their students -- usually from poor, non-English speaking, and minority backgrounds -- are often cited as the reason for low school performance. But there are numerous examples of schools with predominantly poor and minority pupils who have overcome these challenges and are now effective schools. The state intervention process would involve community members in identifying chronically low-performing schools and thereby begin a local search for solutions within the public system.

Involving the Community Furthers Solutions. While the state would be responsible for identifying potentially failing schools based on performance data, the actual designation of failing schools and the imposition of sanctions would reflect the position of parents and community members. Schools would be designated as failing only after a process of investigation and discussion involving impartial reviewers, the district, educators, and members of the local community that takes the realities of the district and the community into account.[12] Involving parents and community members in the process would set the stage for the local involvement that would be required to turn the school around.

Carrot and Stick Approach Assures Action. Districts would be responsible for helping low-performing schools become effective, but they may need additional funds to be successful. However, current categorical programs often provide additional funding without producing major improvement. This recommendation therefore proposes mandatory planning, relaxed restrictions on staff replacement and hiring, and parent choice in case strong action is needed.

Sanctions for failing schools would be established as a last resort. Unlike many state intervention plans cited earlier, the recommendation in this report does not propose that the responsibility for operating schools be transferred from districts to the state. On the contrary, the thrust of this recommendation is to develop local solutions.

One avenue of local solution lies with districts. They would have to develop and implement improvement plans for failing schools. These plans might involve reallocating district resources to increase the inputs for failing schools, replacing school principals or teachers, or contracting out for educational services in those schools. Districts would be enabled to suspend certain due process and collective bargaining constraints in order to facilitate improvement plans.

In certain cases, poor school performance may be caused by a lack of resources that district reallocation cannot rectify. In such cases, additional funding would be available from the state and allocated in school improvement plans developed by the district. District plans that involve supplementary state appropriations would be carefully reviewed to determine if the district should first reallocate its own funds.

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[12] While there is little consensus on what minimum performance standards for schools should be and developing criteria for failing schools would be politically difficult, simply targeting schools at that are ranked at the bottom of performance indicators would not be sufficient. Even if all schools improve dramatically, there will always be a range of performance, with some schools ranked lower than others.

Another avenue relies on parental choice. Parents should at all times have a right to an effective education for their children. Under this report's proposals, parents would not be required to keep their children in failing schools. If parents choose to pull their children out of a failing school, districts would be responsible for finding alternative locations for them. This might involve placing students in other schools in the district, negotiating with neighboring districts for spaces, or opening new schools.

Parents would have an additional safeguard against the possibility that their students would be transferred from one failing school to another: if parents and teachers representing 30 students from failing schools develop and receive approval from a non-district review committee, they would be authorized by the state to form another school. Assemblywoman LaFollette has proposed legislation consistent with this notion, and Great Britain has developed a similar policy.

This proposal would establish a strong incentive for districts and schools to work together to turn failing schools around. Some districts may be unable to find or create a sufficient number of spaces in public schools for students from failing schools. Such districts would be enabled to contract with private education providers to provide schools for the students, or to provide students from failing schools with vouchers for educational services. Some failing schools would probably close as a result of parents transferring their children out.

2C: SUPPORT PARENTAL CHOICE OF EXPANDED SCHOOL OPTIONS

Parents should have the right to select among public schools, and the state should provide incentives for districts to develop mini-schools (autonomous schools-within-schools) and other alternative school programs from which parents could choose.

1. **Right to Choose.** The legislature would establish the presumptive right of parents to send their children to any school within a district, provided that the choice does not contribute to segregation. Districts would have to develop reasonable and fair procedures to insure parental choice, or face legal action.

2. **Interdistrict Choice.** The state would strengthen and extend existing laws to enable and encourage districts to enter voluntarily into interdistrict transfer agreements so that parents could send their children to schools outside of their home district.

3. **Mini-Schools.** To stimulate the development and spread of mini-schools and other schooling alternatives, the state would initiate a Schools-of-Choice grant program, available to schools or districts, that would provide for both planning and implementation.

4. **Information.** The state would establish Regional Information Centers that would do outreach work and provide information about schools to parents who otherwise might not have adequate access to alternative programs.

A. The Need

Under the current system, parental ability to choose a public or private alternative to the public neighborhood school is limited. Parents choosing a school outside of their neighborhood school must petition and obtain approval from their school district of attendance. Requests are granted for exceptional circumstances. Most parents must send their children to schools assigned by their school district.

This lack of parental choice might be fair if all schools were equal in terms of quality and breadth of instructional and curricular offerings. However, research consistently confirms what parents know -- schools vary greatly in their quality as measured by school resources and students performance (Coleman 1966; Jencks, 1972; Leacock, 1969; Rutter, 1979; Goodlad; 1984).

Recent data on private school enrollments and intra-interdistrict transfer requests demonstrate that an increasing number of parents are demanding choice -- through legal and illegal means:

- For the 1987-88 school year, San Francisco Unified approved 4,000 intra-district transfer requests, while rejecting 10,000. The district estimates that thousands of these "rejected" parents will resort to illegal means -- misrepresenting their child's ethnicity or residence in order to secure their school of choice (San Francisco Chronicle, "How Parents Lie to Get Kids in Good Schools, December 21, 1987).
- Berkeley High School's academic reputation has contributed to a student enrollment of 2,934, 10 percent of whom are attending illegally. (The Monthly, "High School Confidential," October 1987; The California Directory of Public Schools, 1987).
- While private school enrollments have remained a steady 9-11 percent, of California school attendance, private school enrollments have increased from 412,344 in 1974 to 536,920 in 1985, while enrollment in public schools during the same period has declined 6 percent (California State Department of Education, 1986).[13]
- Between 1980 and 1983, two U.S. Department of Education surveys revealed that private school enrollment increased by 400,000, with the number of private schools rising by 3,200. During the same period public school enrollment declined by 1.7 million and the number of public schools fell by 1,700. (National Center for Education Statistics, 1984, as cited in Finn, 1985, pg. 10).

Several separate studies have indicated that parents with children enrolled in Catholic schools are attracted by the perceived educational quality of Catholic school offerings. Despite the financial barriers which families face, parents are making the necessary financial sacrifices to enroll their students in private schools. Parents in some cities have indicated educational quality to be the primary factor behind their choice of private schools (City-Wide Educational Coalition, 1985, as cited in Institute for Responsive Education, 1987; Finn 1985; Darling-Hammond and Kirby, 1985; Gemellow and Johnson as cited in Institute for Responsive Education, 1987).

Although Catholic school enrollment has continued to decline since the 1960's, minority enrollment in Catholic schools has been increasing. In 1983-84, minorities made up more than 20 percent of Catholic school enrollment nationally. This rate is doubled and tripled in many urban dioceses, where minority enrollment often exceeds 60 percent (Sherman, 1984, as cited in Finn).

The Institute for Independent Education has documented the existence of over two-hundred and fifty urban private schools (secular and nonsecular) which serve black students and their families. About one-fourth of the schools enroll students with incomes below $15,000, while the majority of families report earnings in the $15,000 to $30,000 range.[14]

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[13] This is particularly noteworthy because private school tuition at even the less expensive Catholic institutions is considerable. For instance, in Alameda County, the average tuition for elementary school students is $1362 (1986-87) and $2100 for high school students (1987-88), while we have estimated the costs of independent schools to range from $1,900 to $6,900 at the elementary school level, and $2,600 to $7,600 at the secondary school level (Information on Catholic tuitions was provided by the Office of the Superintendent of The Alameda, Contra Costa Diocese; Information on estimates for private schools was provided by the California Association of Independent Schools).

[14] Conversation with Joan Ratteray Davis, Executive Director of the Institute for Independent Education, October 26, 1988; Institute for Independent Education, 1987.

Whether or not private schools are better than public schools is an issue which has received considerable attention and one which is still very much open to debate. The 1982 Coleman, Hoffer, and Kilgore study, High School Achievement, represents the most comprehensive study of this issue to date and attempts to demonstrate that private schools outperform their public school counterparts in terms of student achievement. Researchers have questioned this finding on a variety of levels (Murnane, 1984; Alexander, 1985; Keith and Page, 1985). The most widely held criticism is that the study did not properly control for student ability, which often plays a critical role in determining whether or not a student will be admitted to a private school. No doubt this academic debate will continue unresolved. The real issue, however, seems to lie in parental perceptions of quality -- and in that realm parents voices are being heard.

Choice a Limited Option for Poor and Minority Families

As the previous sections documented, minority and low-income families are disproportionately represented in low-quality public schools. Hispanics, Blacks and others are least likely to be enrolled in private schools.[15] There is a considerable amount of evidence to suggest that income levels are primarily responsible for this inequality (Noell and Myers, 1983; 1982 U.S. Census Data as cited in Finn 1985).

Limited information on schooling alternatives within the public school system also serves to inhibit parental choice for minority and low income families. Most districts do not distribute information on district policies and procedures for transferring to public schools within or outside district boundaries. For the most part, the system is a closed process -- parents are left to their own resourcefulness. This laissez-faire system of information gathering and distribution tends to benefit middle and upper income parents. As Bridge (1978) notes: "Forty years of social research have consistently found a positive correlation between information levels and social class (p. 512)."

District Efforts to Expand Choice Not Enough

Some school districts have responded to parental demand for quality school options by creating and expanding magnet and alternative schools.[16] School districts offer these options district-wide, so that in theory all parents have an opportunity to choose these schools as an alternative to their neighborhood school. In practice, admission to these schools represents options for only a limited number of parents for the following reasons.[17]

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[15] For example, 1982 data revealed that 11.2 percent of Whites; 8.7 percent of Hispanics and 4.4 percent of Blacks were enrolled in private schools (Bianchi, 1982 as cited in Finn 1985).

[16] Magnet schools offer parents a choice of a distinctive program or instructional methodology as a means to achieve voluntary desegregation. Alternative schools are chosen by both parents, students, and faculty, although alternative schools are not necessarily designed to further desegregation.

First, parental demand continues to exceed supply. For example, San Diego, Los Angeles, and Palo Alto Unified all report waiting lists at most of the magnets or public alternatives within their districts. In fact, some schools report waiting lists which equal or surpass the capacity of the school, while still other schools have continuous waiting lists with application backlogs of up to three years.[18]

Second, because of the limited numbers of alternatives, districts must use some type of criteria -- first come, first served, lottery, academic, desegregation; or other -- to make enrollment decisions. Paradoxically, some of these admission policies tend to favor middle and upper income parents and students. For example, in order to have a chance at getting admitted on a first come, first served basis, parents must have a working knowledge of appropriate deadlines and have the luxury of time to wait in long lines. District information services are often in the form of notes to parents, or through brochures available at the district office. These approaches have been found to be ineffective in reaching low-income and minority parents. This is particularly the case for parents who are not English proficient. Even when districts have taken the care to translate district brochures, translations tend to obscure fine points and without other information parents may not fully understand the educational advantages of attending magnet program.[19]

Admissions criteria which are based on academic evaluations also tend to favor middle and upper income students. Low-income students (a high proportion of whom are minorities) and limited English speakers, tend to be outperformed on standardized achievement tests by their white and middle income counterparts (Sizer, 1984, p. 37; The Achievement Council, 1988). Low performing students are unable to compete equitably for admissions to alternative schools which use standardized tests and other student performance measures as criteria for admission.

Desegregation orders are often framed in terms of eliminating minority isolation. In effect, districts attempt to encourage white parents to select schools in predominantly minority communities which have been upgraded. Although districts try to ensure that students in the local attendance area can attend the magnet schools, this process tends to produce a system of increased choice for majority parents rather than minority parents.[20]

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[17] It has been estimated that between one-fourth and one-third of parents in these districts are being served by these schooling options (Raywid, 1985). Although researchers have estimated that most districts with enrollments exceeding 20,000 offer some form of magnets or public alternatives (Raywid, 1985), only 98 of California's 1,028 school districts over 20,000 students. Therefore, most of California's districts are less likely to develop alternative schooling options if current trends continue (see State Department of Education, 1984-85 data from "Selected Education Statistics on Public and Private Schools," 1986).

[18] For example, in the Los Angeles Unified School District only 26,000 of the district's 592,000 students are enrolled in the district's magnet schools, while 10,000 students are reported to be on waiting lists for other positions. The waiting list for Brentwood Unified is currently reported to be 1,000 students (see Los Angeles Times, "Magnet Schools in L.A. -- Elitism or Top Education?" January 10, 1988). Two of the eleven schools in the Palo Alto Unified School District are alternative schools. One of the districts' schools reports a waiting list which is equal to the current student enrollment ("Choice" Panel Discussion, 12/1/87). The San Diego Unified School District, Office of Magnet and Voluntary Integration Programs reports that all of the districts' fifty magnet schools have admission waiting lists (conversation with district administrator 1/88).

[19] See for example, the Office of the Desegregation Compliance Monitor, San Jose, 1987.

With few exceptions, teachers do not get to actively choose whether or not they can teach at a particular magnet school.[21] In general, principals lack hiring discretion, so teachers with the most seniority can be bumped into newly created magnet schools. Since teacher demand exceeds the supply of open positions, teachers are often in the same position as students attempting to get admitted to magnet schools. More senior teachers are generally bumped into these positions which tends to lock out novice teachers who may be especially skilled in a specific curricular area offered but lack the seniority to get the job.

This is related to another inequity which exists under the current magnet system. Magnet schools often tend to drain resources (more experienced teachers, modern equipment, more ambitious students, etc.) from other schools in the district.[22] This leaves the less senior teachers with the least ambitious students for the majority of neighborhood schools in the district. Unfortunately, these schools lack the political support to redistribute resources equitably throughout the district and lack the financial and other inputs to improve themselves.

In effect, even some of well-intentioned efforts to provide alternatives within the public school system have fallen short of extending parental choice of high quality programs to all families.

B. Explanation of Recommendation

1. **Right to Choose.** *The legislature would establish the presumptive right of parents to send their children to any school within a district, provided that the choice does not contribute to segregation. Districts would have to develop reasonable and fair procedures to insure parental choice, or face legal action.*

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[20] The San Diego Unified School District has attempted to address the issue of dislocating minority students by giving minority students in the immediate magnet attendance zone (i.e., students who were previously attending the school) priority and then filling additional spaces with either minority or majority students in accordance with the district's desegregation objectives (conversation with administrators in the Office of Community Relations and Integration Services, December 1987).

[21] Prince Georges County, Maryland does provide some degree of choice for teachers. Rather than being assigned at the district level, teachers are hired by principals at the school site (Christian Science Monitor, "Prince Georges' Parents Say, "Please Bus My Child," October 2, 1987).

[22] A recently proposed medical and health services magnet in the Los Angeles Unified School District serves as a case in point. The initial start up costs are estimated at $45 million dollars, yet in any given year the school will enroll only 2,000 of the district's 590,000 students (Los Angeles Times, May 1988). Hispanic and Black students who attend magnet schools in L.A. Unified, tended to be more inclined and eligible to attend CSU and UC than their non-magnet counterparts (Los Angeles Times, "Magnet Schools in L.A...", January 10, 1988). Magnet schools tend to cost more than non-magnet schools. Blank's national survey of 45 magnets schools (1984) found per-pupil costs to be $59 higher on average, than other schools in the district (as cited in Institute for Responsive Education, 1987). Magnet schools, which are developed as part of district desegregation plans, are generally eligible for both state and federal desegregation funds.

The state would require districts to develop plans for increasing parental choice of schools within the district. The state would publish guidelines that establish uniform standards that districts would use for determining program and school capacity; ensuring that choice proposals are in compliance with district desegregation plans; and establishing priority for interdistrict transfers, siblings and students attending failing schools. Parental choice could not increase segregation.

Districts with desegregation plans would be responsible for ensuring that intradistrict choice proposal are in compliance with mandatory or voluntary plans. Parental choice in these districts would be balanced according to the district's needs for integrating district schools and mini-schools.

Districts would have the discretion to develop admissions policies for programs, mini-schools, and schools, which would allocate school space by lottery or through a weighting system, or some combination of both. State law would prohibit districts, schools, and mini-schools from establishing admission policies which would exclude students on the basis of academic achievement, parental income, sex, or race. Districts would be prohibited from establishing admissions priorities on a first-come, first served basis.

The state would require districts to process requests for choice of school, mini-school, or interdistrict transfer (see below) in a timely manner. The state would require districts to establish uniform registration deadlines for receiving and returning parental choice applications. Districts would be required to transmit information on deadlines, school and mini-school capacity, instructional and curricular programs, and performance data as well as other relevant local policies to the Regional Information and Referral Centers (see below).

2. **Interdistrict Choice.** *The state would strengthen and extend existing laws to enable and encourage districts to enter voluntarily into interdistrict transfer agreements so that parents could send their children to schools outside of their home district.*

State law would be amended to remove interdistrict enrollment limits and any other barriers which would discourage students from transferring to schools in districts volunteering to accept or send students across district borders. School districts would decide whether or not to participate in a statewide interdistrict enrollment program. Districts agreeing to participate would be required to permit any student attending schools within the district to transfer to schools in other participating districts. Similarly, participating districts would agree to admit students transferring from schools in other districts.

State funding based on average daily attendance (ADA) would follow the student to the school district of his or her school of choice. Transportation to the boundary of the district of residence of the student would be paid for by the district of residence; a state fund amounting to between five and ten percent of current total statewide expenditures on school transportation would be used to reimburse the sending district for the cost of this transportation. However, transportation from the receiving district boundary to the school of choice would be paid for by the receiving district from its normal transportation funds.

3. **Mini-Schools.** *To stimulate the development and spread of mini-schools and other schooling alternatives, the state would initiate a Schools-of-Choice grant program, available to schools or districts, that would provide for both planning and implementation.*

The state would initiate a major grant program to make funds available to schools on a competitive basis to plan for and implement mini-schools within schools. The grant would consist of two phases. The first phase would be a one year planning grant. Schools awarded such grants would receive $75 per student for secondary schools or $50 per student for elementary schools. The second phase would be for a three-year implementation grant. Schools awarded a phase two grant would receive $30 per student per year for secondary schools and $20 per student per year for elementary schools. Up to ten percent of schools would be eligible for the grant each year.

The state would not prescribe how schools should use the grant. Schools would have the discretion to use the grant to establish mini-schools as part of their school development plan (see Recommendation 4A). For example, some schools might choose to fund release time for twelve teachers and one administrator; while another school might use the fund to release three lead teachers and use the remainder for instructional materials.

Schools, rather than districts, would submit proposals for the grant. No approval from the district would be required. Teachers and parents could submit mini-school proposals to their representatives on the School Coordinating Council and the School Parent-Community Governing Body (see Recommendation 3B); these school entities would be responsible for approval before submittal to the state. Mini-schools would share the same building space; operating autonomously under the direction of the School Coordinating Council and Parent-Community Governing Body.

4. **Information.** *The state would establish Regional Information Centers that would do outreach work and provide information about schools to parents who otherwise might not have adequate access to alternative programs.*

The state would ensure that all parents have an equal opportunity to make an informed choice by establishing a statewide system of regional information centers. Centers would be organized regionally throughout the state with an emphasis on meeting parental and student needs in heavily populated urban areas and ensuring geographic accessibility in rural areas. For example, one center might serve up to several districts in rural areas, while several centers would be required in larger districts.[23]

The state would contract with public providers, such as county offices of education or create entirely new information centers depending upon feasibility and needs. Centers would report directly to the state allowing them to focus on the needs of parents and students.

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[23] The state day care Resource and Referral Network could provide a model for the proposed state information centers. Currently each county in the state has at least one resource and referral center, with a total of 72 centers statewide. State K-12 education centers would require more coverage and more intensive consultations. In our estimate, the proposed information system would require up to three times the number of centers offered for day care providers.

Center services would be free to all parents and would operate year-round. Centers would serve as school information, resource, and advising centers for parents with students enrolled in the public schools. The state would require that center staff reflect the language and cultural diversity of the area under their jurisdiction. The state would require that parents as well as individuals familiar with the community be employed as part-time or full-time staff. It would also be appropriate for centers to hire bilingual student liaisons and counselors -- especially in regions serving large immigrant populations. The state would further require that centers hire educators who are familiar with district and school policy and have a substantive knowledge of a wide range of instructional and pedagogical approaches.

One possible staffing model would consist of a full-time executive director, a full-time outreach coordinator, and up to ten full and part-time counselors and school liaisons who would work one to one with schools, parents, and students.

The state would require centers to contact and network with schools, districts, local grassroots community organizations, social service agencies, day care resource and referral agencies, churches and other social organizations. Use of traditional media (television and newspapers; State Department of Education, district, and school press releases) would supplement individual counseling and advising efforts. Centers would collaborate with school districts to ensure that all prospective students and parents would be informed of school capacity and performance data, district or school deadlines, and other relevant school choice policies. In addition, the center staff would receive and distribute information obtained from School Performance Reports (see Recommendation 2B).

C. Benefits

Choosing Becomes an Open Process

Choosing an alternative to the assigned neighborhood school would no longer be a closed process. Under the proposed system, all parents would have equal access to information. Parental choice of schools between districts would no longer be processed on an individual case-by-case basis. Transferring to another school would be standard policy and therefore less susceptible to political manipulations. Parental ability to choose a school outside of their attendance area would no longer depend on special knowledge, school district, or board contacts.

Information on district, school, and mini school programs and policies would be centralized at the state regional information centers. Information on school and district programs would be synthesized and channeled to parents via parents, volunteers, and educator counselors at each center.[24] Staff would also be bilingual in order to address the needs of non English speaking parents. The Massachusetts State Department of Education has reported a significant increase in the number of parents who actively chose schools after the Cambridge school district embarked upon a policy of including parent liaisons who were familiar with the community and were of the same ethnic group as the parents they consulted.

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[24] This type of information system has been advocated by others concerned with ensuring that all parents have access and the ability to discriminate when making choices. Bridge (1978) recommended that "A politically insulated, regulatory agency must be charged with gathering, collating, and disseminating basic descriptive information about alternative suppliers (p.522)."

Districts would benefit from the efficiency the proposal would afford. Participating districts would no longer have to spend valuable time determining the merit of individual transfer requests. The proposal would allow participating districts to enter into the agreement once eliminating the need to evaluate incoming and outgoing interdistrict requests on an individual basis.

Choice Improves Quality of Public Schools

Parental choice of intra- and inter-district schools will put healthy pressure on districts to expand improvement efforts and strategies to all schools.

Parents would have the choice of selecting public schools and mini schools within their district of attendance as well as schools in districts throughout the state which have entered into voluntary inter district agreements provided that the school of choice has sufficient capacity and the transfer would not impede desegregation efforts.

Parental choice in this context is a bargaining tool for dissatisfied parents. In effect, parents would deselect schools that were not meeting their needs by choosing another. This threat of exit would reinforce efforts of parents to influence the content or quality directly at the school site (Seeley, 1987).

Drastically decreasing or increasing enrollments at a school would require immediate, district response. Local parental pressure combined with the proposed state failing schools policy (see Recommendation 2B) would provide districts with direct incentives to distribute or redistribute district resources (financing, building infrastructure, equipment, effective administrators, and teachers) to schools that lack the resources to succeed.

The Office of Desegregation Assistance at the Massachusetts Department of Education reports that intradistrict open enrollment (or controlled choice) has been a catalyst for districts to address funding and resource inequities that exist between schools in at least two districts which are experimenting with open enrollment. Although these districts have not gone as far as to close schools down, decreasing enrollments at several schools have been met with swift district action (Alves, 1983).

Administrators responsible for implementing Minnesota's Voluntary Open Enrollment Options Program have observed that these pressures have been significant enough to enlist the participation of approximately one third of the state's districts. In 1985, the program's first year of operation, 95 of the state's 436 districts volunteered to participate. For the 1988 89 school year, 153 school districts have agreed to participate in the program. The reasons for the increasing amount of district participation seem to vary, but administrators attribute it, in part, to the fact that 1) parents have been successful in persuading districts to participate, and 2) districts with strong programs and schools are motivated by the opportunity to attract new students.[25]

By allowing parents to choose schools outside district boundaries, districts will be making a positive statement about the quality of the schools and programs they offer. Districts would be standing by their programs and schools; parental choice would be just one more means by which parents could obtain a quality education for their children.

Choice and Equity

Districts throughout the country and within the state have successfully implemented policies that have furthered desegregation by making choice between public schools a reality.

Interdistrict Choice. Districts under court order to desegregate have specific legal agreements which prohibit students transferring outside of the school districts' boundaries. For example, as part of the San Francisco Unified School District desegregation order, surrounding districts are legally bound to prohibit the admission of students attempting to transfer to their schools from San Francisco.[26]

Therefore, the voluntary nature of the proposed interdistrict program would ensure that parental choice between districts does not conflict with districts' desegregation policies. This is particularly important in California, as seven of the largest districts (Los Angeles, San Diego, Palo Alto and surrounding districts, Fresno, Pasadena, San Jose, Bakersfield, and Stockton) serving approximately one million (27 percent) of the state's 4.5 million students are under court order or consent decree to desegregate. Statewide, there are 35 districts with mandatory desegregation plans and 479 districts with voluntary desegregation plans.[27]

Minnesota has successfully implemented a similar proposal. In the Minnesota Open Enrollment Options Program, transfers between districts must not have an adverse impact on desegregation efforts in either receiving or sending schools. In addition, districts have the discretion to set policy on admissions, program capacity, and standards for rejection and acceptance of transfer applications, provided that students are not excluded on the basis of academic achievement, athletic ability, disabilities, English language proficiency, or a prior disciplinary record.[28]

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[25] Momentum for increasing interdistrict choice has been building to the extent the state legislature has voted to extend the program (effective 1988-89) so that parents can choose a public school from any district in the state (Minnesota State Department of Education, 1988).

[26] This issue came to light in transfers involving students from Los Angeles Unified School District. Santa Monica agreed to accept five students requesting a transfer from Los Angeles Unified. The request was ultimately denied on the grounds that it would have a negative impact on the Los Angeles court order (conversation with Legislative Analyst's Office, 1987).

[27] Data from the California Public School Directory (1987) and State Controller, Bureau of Local Disbursements, "Program Costs Incurred by Fiscal Year, Court Ordered Desegregation and Voluntary Integration," December 21, 1987.

California has already established a foundation for extend- ing parental choice between districts which addresses transfer between districts with desegregation plans. The recently enacted Interdistrict Workplace Transfer Policy requires districts to grant consideration to parents who choose to enroll their elementary school children in the school district in which they work. Districts have the discretion to admit or deny students provided that there would be no adverse impact on desegregation efforts in either the receiving or sending districts.[29]

Intradistrict Choice. Since 1982, families in the Cambridge Public School system have selected their children's elementary school in accordance with district desegregation efforts. Parents submit their first, second, and third choices to the district. All parents must register through this process in order to enroll their children in public school. The district accommodates requests in as far as they meet district objectives to integrate schools by ethnicity and socio-economic group. Parents can reapply each year. Under this system, 90 percent of all parents receive their first, second or third choice, and 65 percent are reported to receive their first choice (Alves, 1983).[30]

The Southeast Alternatives Project in Minneapolis, which began in 1971 as a federally sponsored experiment in alternative education, has expanded into a district wide system of choice for students and parents. Parents choose from over forty three alternatives or magnets at the elementary and high school levels. Schools offer choices of curricular specializations, such as fine arts or technology; instructional approaches, including continuous progress, open, fundamental, contemporary and Montessori; and programmatic emphases such as International Baccalaureate. Several schools offer combinations of these options. For example, a school with a fine arts curricular focus uses a continuous progress approach to learning. Students, work at their own pace, attending classes in ungraded units spanning two to three grade levels. In addition, one school offers several autonomous programs including an advanced technical magnet, an alternative learning approach to English and social studies, and a magnet program built around training in broadcasting and radio technology (Minneapolis Public Schools, 1987).

In District #4 in New York City, parental and student choice is balanced with the districts goals of integrating its schools and mini schools. The district is predominantly Hispanic and low income; therefore, families within the district are given first priority. The district admits students on a first come, first served basis, with priority going to students who would contribute to integrating schools and mini schools by race and family income (Meier, 1987).

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[28] Interviews with Ken Zastrow, Minnesota Department of Education, November 1987 and January 1988.

[29] California Education Code, Section 48204; Assembly Bill 2071, Chapter 172.

[30] The San Jose Unified School District is completing its second year of a controlled choice plan which is a modification of the Cambridge Elementary School District plan described in this section. However, there are several significant features which distinguish the San Jose system from the Cambridge model and the model we propose in this report. One of the most obvious is the fact that the San Jose Unified School District does not permit parents to deselect a school once their children are enrolled. This does not appear to be a constraint imposed by the desegregation order, but rather one imposed by district administrative considerations. Under the proposed system, parents would not be constrained from selecting or deselecting schools.

The common feature in all of these examples is that parents have the opportunity to choose from all schools within their district. In other words, all schools are potential schools of choice.

Choice Stimulates a Variety of Instructional/Curricular Offerings

> The heart of fine education is the constructive confrontation of able teachers and willing pupils, a joining that cannot be mass produced. It emerges from deft and sensible adaptation, school by school, even classroom by classroom, and from a commitment to learning that best flourishes when students and teachers feel a strong sense of ownership of their particular schools. (Coalition of Essential Schools, 1987 88)

Increasing parental and student choice is productive from a strictly pedagogical point of view. The act of choosing a particular instructional methodology or curricular emphasis has the potential to empower students, their parents, and teachers (Raywid, 1986).

Mini schools would offer parents, students, and school staff smaller, more personal learning environments. This structure would support increased communication between students, parents, and teachers strengthening the link between home and school.

Creating mini schools within school facilities would provide parents with options within their neighborhood school. This would serve an important function for parents who value the concept of a close, neighborhood or community school. Parents who do not want to send their children to schools in other districts or schools which are more than a short walk or bus ride away will also have the opportunity to choose from among a variety of educational programs.

Students and their parents would have the opportunity to select from among a wide variety of educational philosophies. Parents wanting to expose their child to an open education would have that option; similarly, parents desiring a more traditional back to basics approach could select that option. In addition, both parents and students would have the opportunity to select a specific instructional methodology which is best suited to meeting students' individual learning needs.

Students in mini schools would have the benefit of learning from many teachers. Teachers working with the same cohort of students over time would provide students with an environment which is small and personal. Students would have the opportunity to know more than one teacher and teachers will have the opportunity to get to know students. Teachers who know students on an individual basis will more likely be successful in gaining student respect. Teachers who gain the trust of their students will be more likely to become role models students can identify with and learn from. Academic and personal counseling and advising would be a natural by product of more personal relationships between teachers and students.

Students who attend schools in smaller settings and environments which they or their parents have specifically chosen are more committed and invested in the learning process. Team instruction will provide a particular benefit to large schools. Teams will help to reduce the extreme isolation and alienation that is characteristic of large schools. There is some evidence to suggest that students working in smaller, more personal settings are less likely to drop out.

Teacher team arrangements would also be advantageous for teachers. Teachers could learn from one another, picking up a variety of instructional strategies for motivating students.

District #4 in New York City's East Harlem represents a powerful example of the educational creativity which can be released by allowing teachers to take the initiative in designing programs and instructional options for students. What started out as a group of teachers with a vision for one school is now a district wide system of more than twenty schools offering a choice of educational programs to parents, students, and teaches at the middle school level. Driven by teacher input and parent demand, students, parents, and teachers can choose from among a broad range of educational programs offered at 49 mini schools. Mini schools are small, occupying twenty school facilities and enrolling between 180 to 300 students each. Schools are organized around a special theme and function under the supervision of a teaching director. The results: schools in this predominantly low income Hispanic community have been transformed into safe, supportive learning environments that are national models of educational innovation. Teachers and administrators report increases in student achievement and morale.[31]

Building a structure to foster the relationship between teachers, and students is central to the philosophy of members of the Coalition of Essential Schools, a national network of approximately 50 reform minded junior high and secondary schools. Member schools and districts share a set of core beliefs and characteristics: an environment which promotes teachers' and students' individual styles of teaching and learning; a simple flexible school structure; and a student focused program where mastery is central to promotion and graduation. Schools have a strong commitment to a diffused leadership structure and teachers work collaboratively in teacher teams responsible for 80 to 100 students (Coalition of Essential Schools, 1987 88).

Based on a study of public schools throughout the country, Goodlad (1983) supports the notion of reorganizing schools into smaller schools within schools. As part of his recommendations in A Place Called School, Goodlad stresses the need to reorganize instruction within these teaching units so that each smaller school would be composed of students in all grade levels who would spend their four years with the same peers and with the same teachers. Goodlad suggested that such an arrangement would help to reduce teacher and student alienation. Moreover, this restructuring would be educationally beneficial, facilitating a "continuous progress" approach to learning by permitting students to progress at their own pace regardless of age or grade level.

American Federation of Teachers President Albert Shanker has recently outlined a proposal for groups of six or more teachers to establish mini schools, small autonomous teacher units or schools within schools. Teachers or entire schools would submit proposals to a committee composed of union and district representatives. Proposals would be required to meet with the approval of school staff and incorporate plans for shared decisionmaking, and would employ a variety instructional strategies including team teaching, cooperative learning, and individualized learning. Shanker recommended that teacher teams work with cohorts of students for periods greater than one year to promote continuity and closer connections between teachers and students. Schools within schools would receive the full funding allotted for each pupil (American Federation of Teachers, 1988).

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[31] Conversation with John Falco, District #4 Administrator, May 1988.

RECOMMENDATION 3

ESTABLISH SCHOOL AUTONOMY, AND EMPOWER PARENTS, TEACHERS, AND PRINCIPALS

School officials consistently use a variety of practices -- legal, illegal, and excessively bureaucratic -- to shut out parents. . . . They imply that since we are non-professionals, our input is uninformed and therefore unwelcome.

Cathy Hatfield and Joyce Everly, parents, in
Barriers to Excellence: Our Children at Risk

Teaching often lacks a sense of ownership, a sense among the teachers working together that the school is theirs, and that its future and their reputation are indistinguishable. . . . Teachers are often treated like hired hands. Not surprisingly, they often act like hired hands.

Theodore R. Sizer, Horace's Compromise:
The Dilemma of the American High School

The preceding recommendations focused on reversing the increasing tendency of schooling to be over-regulated and over-controlled by the state. However, centralization is not simply a matter of state control. In many districts, the central staff exercises considerable authority that both creates excessive paperwork and limits discretion at the school level. In some cases, control by district headquarters is more of an impediment to school improvement than state regulations per se. Therefore, this section proposes changes in governance that would enable schools to have more autonomy in designing and carrying out their own educational program.

Effective schools develop a vision of their educational program that is shared by administrators, teachers, parents, community members, and pupils -- and they create a learning environment that supports this vision and is suited to their students. To promote such effectiveness, schools of the 21st Century will need autonomy within a larger framework of accountability to the community, district, and state, and they will need creative administrators in partnership with teachers and parents.

This chapter offers three main proposals aimed at establishing school autonomy and empowering parents, teachers and administrators:

Schools should have autonomy to develop educational programs suited to the needs of their communities. Community members and parents should be given the authority to oversee school operations, and teachers should participate in school management and work in teams.

3A: Provide schools with discretionary budget funding and authority.

3B: Involve parents, community members and teachers in school governance.

3C: Expand teacher responsibilities and promote team approaches to instructional management.

The net effect of the series of recommendations discussed in this and the preceding chapter would be to decentralize the current education system, and create instead performance-based accountability with local control and parental choice. Schools and principals would have considerable autonomy, but could be held to high performance standards by parents. School management would be strengthened by having teachers join together in teams, participate in school decision-making, and help create school of choice for themselves and for parents. This system of education would come much closer to the small-school environments that private schools can create. Yet this reorganized public school system would be able to serve all students with equal standards of excellence.

3A: PROVIDE SCHOOLS WITH DISCRETIONARY BUDGET FUNDING AND AUTHORITY

Schools should have authority over their educational programs and budgets.

1. **Authority.** Each school would be provided with a School Discretionary Budget which it would control, subject to fiscal accountability regulations that districts would enforce. The school would be authorized by state law to spend its discretionary budget on staff development; technology services or equipment; textbook, curriculum materials, and equipment purchases; counseling and specialist services; the hiring of non-tenure track instructors; and other items related to the development and delivery of the instructional program.

2. **Funding.** School Discretionary Budgets would be provided directly to schools by the state, and would not be part of district general appropriations. Districts would pay for all district-level expenses and for non-discretionary school costs (e.g., administrator and tenured teacher salaries). This new funding system would eventually replace current state funding arrangements, including state categorical funding mechanisms.

3. **Additional Funding.** Schools could obtain additional funds by means of competitive grant awards (e.g., for schools-of-choice, staff development, and technology) and from community fundraising.

4. **Hiring Authority.** Schools would have the authority to hire and replace non-tenure track teachers, refuse district assignment of teachers to the school, and request districts to replace tenured teachers.

A. The Need

The above proposals argue for more autonomous schools with less district control. Research shows that some California districts facilitate and help guide schools to develop effective programs.[1] These districts provide a supportive setting for schools, and enable schools to develop unique approaches for their student body. In other words, effective districts give schools autonomy so that the schools can become effective -- and effective districts hold school leadership accountable for results.

But many districts do not operate in a supportive way. They more often follow a laissez-faire approach or are overly controlling. In these cases districts promote uniformity, excess bureaucracy, superfluous paperwork, and mediocrity in the name of equity. Based on research findings about effective districts and effective schools, the following proposals advance a redesign of the authority relationships between districts and schools, in which schools have more autonomy to deliver quality education attuned to their students' characteristics and the district role is revised to focus more on quality control and the supply of supporting services to districts.

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[1] See generally studies of the School Improvement Program including Berman and Gjelten, 1984.

The present funding mechanisms complicates the matter of establishing genuine school autonomy for public schools. Current state support for public schools comes in two forms: general aid under a revenue limit system which funds basic district operations (such as teacher salaries, benefits and operational costs) and categorical aid which funds special services, programs and other items. Categorical aid consists of earmarked funds in the sense that they generally must be used only for selected types of students or for purposes designated by legislation and regulation. In the 1986-87 school year, there were 70 separate state and federally funded categorical aid programs in California public schools. The California School Boards Association (July, 1987) categorized categorical aid programs into eight groups whose total funding added up to $5.4 billion in 1986-87. CSBA's categories are shown in **Table 1**, along with the total dollar amounts spent in the program in 1986-87. Most of these monies are controlled by districts, with the exception of School Improvement Program funds of about $250 million.

Table 1. California State and Federal Categorical Aid Programs: Funding for 1986-87
(In Millions)

Category	Funds
Instruction-Based	$2,637.8
General Fund Add-On	761.4
Health and Social Programs	739.5
Vocational	305.5
Staff Development	56.1
Facilities	525.0
Transportation	293.5
Federal	695.3
Total	$5,414.1

Source: California School Boards Association, 1987

The complexity of categorical funding leads to fragmentation of educational programs at schools and often results in the separation of children into different populations that have different expectations associated with them. This fragmentation represents barriers that often prevent educators from helping all students to learn.

It is widely recognized that the variety and complexity of the current pattern of categorical funding lead to program fragmentation, duplication of effort, and the undermining of school management authority. For example, the Department of Education issued a March 23, 1988 Program Advisory to school districts to help districts implement a legislative provision passed in 1981 that allowed schools flexibility in using categorical funds. Unfortunately, few districts had taken advantage of this effort to more efficiently coordinate categorical funding. The SDE Advisory identified a number of problems associated with the current categorical funding system and its accountability structure:

1) School staff were geared to serve only particular identified eligible pupils;
2) Staff were accountable to district and state level categorical funding managers rather than to the school principal;
3) Staff worked in isolation from other specially funded staff at the site;
4) Staff purchased staff development services and materials separately from other specially or generally funded staff at the site; and
5) Staff provided separate fiscal and programmatic accountability reports to the district and the state.

In short, most observers agree that the system of categorical funding is inefficient and that it is a main cause of the over-regulation of schools. Governor Deukmejian's 1988 California Commission on Education Quality, the Superintendent of Public Instruction in his Agenda for the Twenty-first Century (1988), and the California School Boards Association all agree that categorical programs could be much more efficient. In 1981, the Legislature enacted AB 777 (the School-Based Program Coordination Act) which sought to consolidate some categorical programs and provide flexibility at the school-level. Unfortunately, the provisions in this law have not been widely implemented.

B. Explanation of Recommendation

1. **School Discretionary Budget Authority.** *Each school would be provided with a School Discretionary Budget which it would control, subject to fiscal accountability regulations that districts would enforce. The school would be authorized by state law to spend its discretionary budget on staff development; technology services or equipment; textbook, curriculum materials, and equipment purchases; counseling and specialist services; the hiring of non-tenure track instructors; and other items related to the development and delivery of the instructional program.*

The key to devolving authority from district to school level and reducing categorical program complexity lies in transferring budgetary authority to the schools. The basic idea is simple: Each school would be provided with a School Discretionary Budget over which it would have complete control, subject to fiscal accountability regulations that districts would enforce.

The school would be authorized by state law to spend the school discretionary budget on staff development; technology purchase and use; textbook, curriculum materials, and equipment purchase; counseling and specialist services; the hiring of non-tenure track teachers; and other items related to the development and delivery of the instructional program.

To realize this change, the state would provide the School Discretionary Budget directly to schools, similar to the process for block grants for schools or the School Improvement Program. This proposal would extend the current movement toward consolidation of categorical funding, and, over time, the funding for the School Discretionary Budget could replace much of the categorical funding. District funds would be used for the payment of salaries for tenured teachers, administrators, and classified employees salaries; student transportation, lunches and other special services; facility maintenance; and other district administrative costs including those pertaining to desegregation and parental choice. Under this proposal, schools would purchase services and supplies from districts or from private vendors (see Recommendation 4A for a further discussion). Therefore, districts would have to compete as a supplier and offer satisfactory customer service to their clients -- the schools.

2. **School Funding.** *School Discretionary Budgets would be provided directly to schools by the state, and would not be part of district general appropriations. Districts would pay for all district-level expenses and for non-discretionary school costs (e.g., administrator and tenured teacher salaries). This new funding system would eventually replace current state funding arrangements, including state categorical funding mechanisms.*

Existing instruction-based, vocational education, and staff development state categorical funds would be allocated directly to schools in the School Discretionary Budget. **Table 2** indicates in broad terms the categorical funding areas that would be shifted to school control. The allocations under existing laws would continue to determine the level of funding provided to each school and schools would be required to maintain program and fiscal accountability similar to that required under the AB 777 School-Based Program Coordination Act.

Table 2. Proposed Shift in Categorical Aid Programs: Funding for 1986-87
(In Millions)

Category	Funds	Decisions Should Be Made By: Districts	Schools	Other
Instruction-Based	$2,637.8		X	
General Fund Add-On	761.4	X		
Health and Social Programs	739.5	X		
Vocational	305.5		X	
Staff Development	56.1		X	X
Facilities	525.0	X		
Transportation	293.5	X		
Federal	695.3			X
Total	$5,414.1			

More specifically, the proposed School Discretionary Budget would contain funds from the programs listed in **Table 3**. Using 1986-87 funding as a reference point, under this proposal the equivalent of $2.7 billion in state categorical funds would be allocated, over a transition period, from the state directly to schools in their School Discretionary Budgets. Schools would be required to spend funds for the purposes originally intended in the authorizing statute. Schools would be required to serve the special needs of students identified in accordance with the various special programs, such as Limited English Proficient students, handicapped students, gifted students, potential dropouts, etc. Operation of diverse funding sources within the framework of an integrated school-wide plan would enable schools to provide excellent instruction and services in a more cost-effective manner.

The School Discretionary Budget builds upon the AB 777 model for expending special funds which has been in effect since the early 1980s. AB 777 was designed to consolidate diverse funding sources at the school level under a single school plan developed and approved by a school site council composed of administrators, parents and teachers. Districts can determine which funding sources can be consolidated. Originally enacted in 1981, the AB 777 process was extended in 1985 to include additional programs for schools which qualified to receive dropout prevention and recovery funds under SB 65. SB 65 required that schools which implemented the AB 777 process also use a student study team approach in which special education staff, counselors, classroom teachers, and parents would meet to develop an individual plan for each student in need of services. By the 1986-87 school year, 175 schools in 98 districts had adopted the AB 777 process to integrate specially funded programs.

Major programs available for consolidation under AB 777 include: School Improvement, Gifted and Talented, Economic Impact Aid, Miller Unruh Reading, and Special Education. Some smaller programs included in AB 777 are Staff Development, Conservation Education, Career Guidance Centers, New Careers, and Cadet Corps. Programs added for only SB 65 schools include Adult Education, Continuation Education, Independent Study, Opportunity Schools and Programs, Regional Occupational Programs, and Work Experience Education. The Governor's Commission on Educational Quality recommends extension of the School-Based Program Coordination Act to include the latter programs for all schools and the addition of three new programs: Native American Education, Tenth Grade Counseling, and Instructional Materials for grades 9-12.

Under this proposal, all schools would receive a School Discretionary Budget, not just those who voluntarily choose to do so with the approval of their district administration. The School Discretionary Budget could be phased in over a period of years to provide a smooth transition to the new system.

The next section (see Recommendation 4B) proposes changes in school governance that would accompany the greater authority recommended here. A School Coordinating Council would prepare a School Development Plan to be approved by a School Parent-Community Governing Body (see Recommendations 3B and 4A). These two groups with community, parental, administrative, teacher, and other school staff representation would develop a shared vision for the

Table 3. Proposed Sources for School Discretionary Budget
(In Millions)

	Funds 86-87	Included in: Current AB 777	SB 65	Gov's Comm.
Instruction-based				
School Improvement	$224.9	X		X
Gifted and Talented	21.2	X		X
Economic Impact Aid	106.2	X		X
Miller Unruh Reading	19.9	X		X
Special Education	1,482.5	X		X
Conservation Education	.6	X		X
Adult Education	232.0		X	X
Continuation Education	8.6		X	X
Independent Study	*		X	X
Opportunity Schools and Programs	*		X	X
Native American Indian Education	.9			X
Tenth Grade counseling	7.6			X
Dropout Prevention	12.3			
Vocational Education:				
Career Guidance Centers		X		
New Careers		X		
Cadet Corps		X		
Regional Occupational Programs	212.1		X	X
Work Experience Education	*		X	X
Agricultural vocational education incentive	3.0			
Apprentice	6.9			
School-based Vocational Education	63.2			
Specialized vocational education	4.6			
Vocational education student organizations	.55			
Curriculum Materials/Equipment				
Instructional Materials 9-12	22.4			X
Instructional materials K-8	73.4			
Education Technology	25.8			
Staff Development:				
Mentor Teachers	49.8			
Administrator Training	4.2			
School personnel staff development	0.0			
Total	$2,743.8			

* Funded in district revenue limit

school's curriculum and instruction based on high expectations for all learners. The School Plan and Discretionary Budget are means to organize all the diverse activities at a school -- including those funded by state categorical programs -- into a school-wide framework.

3. **Additional Funding.** *Schools could obtain additional funds by means of competitive grant awards (e.g., for schools-of-choice, staff development, and technology) and from community fundraising.*

This report also recommends that schools be allowed to compete for state (and foundation) grants that further their educational program. Various recommendations throughout this document suggest competitive grants for mini-schools and the use of technology, for example. These grants and community funds could be sought and received without district approval. Though these funds could not be the main source of school revenue, they would help to establish an entrepreneurial spirit at the school level.

4. **Hiring Authority.** *Schools would have the authority to hire and replace non-tenure track teachers, refuse district assignment of teachers to the school, and request districts to replace tenured teachers.*

By shifting budgetary decision-making to the school site, the state and the district will give real power to schools to control their programs. In addition, this report recommends that schools be given greater hiring and dismissal authority so that they can shape their instructional program to fit the needs of both students and teachers. Under this recommendation, schools would have the authority to hire and replace non-tenure track instructional staff (see Recommendations 3C and 5A), refuse district assignment of teachers to the school, and request that districts replace tenured teachers. The School Parent-Community Governing Body (see Recommendation 3B) also would have a voice in the assignment of administrators to the school. The Governing Body would have the right to nominate administrator replacements and approve administrator assignments made by the district and could request their replacement.

This notion of empowering schools to make certain classes of hiring decisions is intended to stimulate more flexible local arrangements that would facilitate quality education while protecting the rights of teachers. Hiring issues involve teacher union negotiations, which are both complex and particular to each district. Some districts have developed "educational trust agreements" with the local teacher union. These agreements modify collective bargaining agreements and district policy to permit flexibility and school input into district hiring practices.[2] They have served the interests of administrators, teachers, and better education by allowing schools and all effected parties to have input into the selection of potential colleagues.

A school-based hiring process involving collaboration among teachers and administrators could represent an effective substitute for the assignment process which prevails under the current system. Teacher transfers based solely on seniority or on arbitrary definitions of needs fail to take into account teacher "fit" in terms of personality, subject matter expertise, experience, and educational philosophy. Extending a school-based hiring process to all districts could facilitate more constructive and satisfying matches between teachers and schools. A "number of years teaching" criterion may be relevant in combination with other factors such as the match between the teacher goals and those of the school, but it is not necessarily appropriate as the only criterion for placing teachers.

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[2] For example, the Petaluma (CA) School District has implemented an educational trust agreement with the teacher union; it is reported to be quite successful.

Moreover, Recommendation 2C proposed incentives to encourage mini-schools within schools throughout California. Mini-schools would provide choice for teachers within a school, as well as parental choice. As the system of mini-schools becomes the norm, the possibilities would increase for voluntary movement of teachers to mini-schools that fit their style. In this case, school-based hiring practices featuring collaborative arrangements and trust agreements could enable most teachers to be placed in the most appropriate situations.

3B: INVOLVE PARENTS, COMMUNITY MEMBERS AND TEACHERS IN SCHOOL GOVERNANCE

A new system of school governance should be instituted with parents and community members serving on school-level governing bodies and teachers sharing in school administration.

1. **Parent-Community Governing Body.** A Parent-Community Governing Body would be established at each school. This governing body would consist of parents and members of the community. It would have the responsibility to approve the school's educational program, expenditures of school discretionary funds, and the establishment of mini-schools.

2. **Teacher Participation.** A School Coordinating Council would be established at each school. This council would be a planning and advisory group, consisting of the principal and teachers, which would be an institutional mechanism for the participation of teachers in critical educational decisions.

A. The Need

Limited Parent and Community Involvement

A breakthrough in student learning is unlikely to come about without greater parent involvement in schools and in their children's schooling. Yet most parents have few areas for involvement and little say about how their schools work.

Families and schools provide the primary educational and socializing environments for children in our society. When the relationship between home and school is strengthened, children are able to make a clearer connection between their home life and school life and their learning improves. Not surprisingly, parental involvement in school has been found to improve student achievement. Research suggests that despite variation in design and methodology, parent participation has been consistently identified as a component of effective schools in most of the effective school studies (Purkey and Smith, 1978; Stedman, 1987).

Increasing parent involvement will not be easy, particularly in light of the changes in the work force and family situations that have resulted in a large majority of families having either two working parents or only one parent in the home. This new reality calls for different structures that bring schools closer to parents.

Presently, the distance between parents and district school boards can be great. More than 30 percent of California's five million students attend school in districts with enrollments exceeding

20,000 students.[3] In large districts, policy making at the district level is generally far removed from the daily operation of individual schools. Moreover, it is impractical to expect that districts can adequately address the specific needs of students attending all schools within their purview.

The problem of district size is further compounded by the increasing number of voters in school board elections who have no children enrolled in the public schools. The National Coalition of Advocates for Children, in a 1985 report found that across the country, only 27 percent of adults have children attending the public schools. If this trend continues, district boards will be elected by a majority of adults who do not have a direct stake in the public school system.

Policy efforts to support parent participation have been limited to involving parents in an advisory capacity; there is no formal structure for involving parents in decisionmaking at the school site. Parents quickly recognize that advisory councils -- which lack even basic decision making authority -- can do little to influence school and district policy.[4]

The California School Improvement Program Councils serve as cases in point. The intent of the program has been to improve schooling by increasing staff and parent input into policy at the school site. This is a step in the right direction, although current efforts have not gone far enough. In the schools which receive School Improvement Program (SIP) funds, parents serve in an advisory capacity with other school staff and community members. The SIP Councils' authority is generally restricted to secondary issues. SIP Councils lack the authority to hire new teachers, determine overall school budget priorities, or to change elements of the school structure, such as scheduling, time blocks, etc. (Policy Analysis for California Education, 1987 and Berman and Gjelten, 1984).

California's efforts to increase parent involvement is even more difficult than in most states because of its diverse student body. Differences in culture, language, and formal schooling between school staff and low-income and minority parents contribute to a lack of trust, understanding, and collaboration between school faculty and parents. These differences can serve to seriously constrain low-income and minority parent participation in advisory committees or councils.

Several national studies have documented the negative experiences of minority and low-income parents. Parents have described their children's school as hostile, with staff and administrators insensitive to parental input and concerns. (The Children's Defense Fund, 1985; National Commission on Secondary Schooling for Hispanics, 1984; and The New World Foundation, 1985). If parents and community members representing all income levels and ethnicities are to become actively involved in the public school system, the structure of school governance must be changed to allow genuine input from parents about the school's direction.

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[3] Districts range in size from five at the low end to 562,793 students at the high end. Data based on enrollments for the 1984-85 school year. (California State Department of Education, "Selected Education Statistics," 1986).

[4] Working and low-income parents are even less likely to devote their time to parent school committees and councils which they perceive to be largely symbolic and therefore, a waste of time (McLaughlin and Shields, 1987.)

Limited Teacher Participation in Decision-making

Autonomy is a basic characteristic of professionalism. However, most teachers do not participate decisions that significantly affect their ability to do their jobs. Teachers typically do not participate in long-range planning at the district or school site, are not consulted on district policies and regulations, do not have input into the textbook selection process, and have no input into the selection process for choosing their colleagues.[5]

Moreover, teachers often lack the basic authority to make decisions affecting their own classrooms. Teachers' ability to determine instructional techniques, develop and plan student learning activities, and evaluate students varies considerably from school to school. Elementary school teachers perceive themselves as having less discretion then their high school counterparts (Goodlad, 1984).

The powerlessness of teachers would be less critical if it did not adversely affect school effectiveness. However, research indicates that teacher participation, along with principal leadership, are critical for effective schools (Edmonds, 1979). Teacher unions, as well as California's Commons Commission (Commons, et al., 1985) and many national reports (The Carnegie Forum on Education and the Economy, 1986; Goodlad, 1984; Sizer, 1984; The Holmes Group, 1986) agree that it is time for teachers to play an essential role in school decisionmaking.

B. Explanation of Recommendation

The redefinition of the roles of schools and districts proposed in this report places great responsibility on schools. It is unlikely that this new responsibility can be exercised effectively without a revised system of management and governance that empowers parents, teachers, and administrators. **Figure 3** presents a schematic illustration of our recommended new school governance and management structure.

The Parent-Community Governing Body and the School Coordinating Council would be responsible for decisions about the school program, though each would have separate functions. No governance can be meaningful unless the informal relationships promote effective interactions. The intent is for the two bodies to be the nucleus for collaboration between parents and school staff and for collegiality among teachers and administrators. In order to achieve these goals however, the proposed bodies must have real -- not symbolic -- authority.

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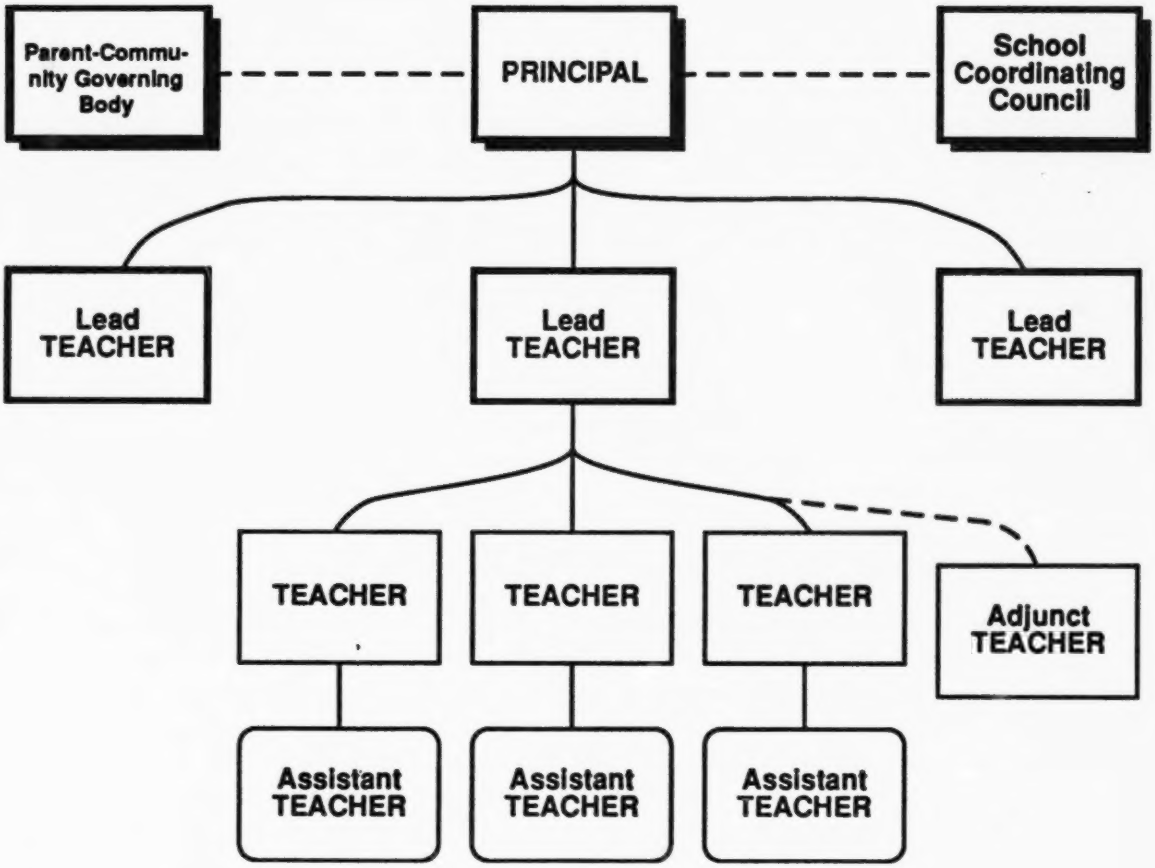
[5] Teachers surveyed in John Goodlad's study perceived themselves as having the least amount of autonomy with respect to establishing school-wide objectives, selecting content and skills to be taught, use of classroom space, grouping students for instruction, choosing instructional materials and scheduling the use of time (see Goodlad, 1984, pg. 189).

Figure 3

THE SCHOOL AND TEACHER TEAMS



1. **Parent-Community Governing Body.** *A Parent-Community Governing Body would be established at each school. This governing body would consist of parents and members of the community. It would have the responsibility to approve the school's educational program, expenditures of school discretionary funds, and the establishment of mini-schools.*

True school-level governance holds the prospect of bringing parents into a position where they could have direct influence over the school's program. In many districts, particularly large ones, the district board cannot play the role of community oversight of district affairs that it was intended to have. Under present arrangements, district boards are often so bogged down with financial and bargaining issues that they cannot provide real community input to individual schools. Devolving some budgetary authority to the school-level Parent-Community Governing Body will enable district boards to focus their attention on bargaining and facilities issues.

Under this proposal, the state would require all schools to establish a Parent-Community Governing Body. The state would require that the governing body be composed of a majority of parents of children enrolled in the school. Other positions would be filled by community members, for example, business people, professionals, and local social service providers. The parent members would be elected, but the number, composition, and method of appointment of other members would be locally determined.

This report does not offer a more detailed specification of the school Parent-Community Governing Body because we believe it is best left to local community decisions, rather than being imposed by the state. School-level governing bodies raise serious issues about the relationship between district and school governance, as well as concerns about mandated decentralization efforts that have failed in the past (for example, New York City's early decentralization plan that included the equivalent of school-level elected boards). These problems are real. However, the need for greater parent and community participation in school governance is so pressing that creative solutions must be found. We believe that communities and school-people working in collaboration can evolve sound solutions.

To promote this development, this report proposes that the transition to the new Parent-Community Governing Body take place over an eight year period. During the first three years, we recommend that pilot projects be funded that demonstrate different models of local governance. By the eighth year after the reform laws are passed, every school would be expected to have made the transition to school-level governance. Many different school-level governing bodies will evolve. Given the demographics of California, this diversity is appropriate.

The Institutes for School Development (see Recommendation 4A) would help research, disseminate information, and conduct training on models of school governance. In addition to the demonstration sites discussed above, they would have many other models from this country and around the world upon which to draw. For example, Great Britain has proposed a decentralization plan that gives much autonomy to schools and is similar in many respects to the current proposal.

Closer to home, both nationally and within California, private independent elementary and secondary schools typically have local governance that involves parent and community participation. These schools are governed by Boards of Trustees who are responsible for school planning, development, and oversight. School site boards are responsible for hiring headmasters and serve as overseers of school operations. Roughly two-thirds of the trustees are parents. Schools attempt to attract board members representing a broad range of interests: business, politics, the arts, medicine, etc. Trustees generally serve up to two three-year terms. School faculty and administrators nominate trustees who are elected by the board.

The Illinois State Legislature is considering legislation which would give parents a larger role in shaping school policy within the Chicago Public Schools. A component of the proposal calls for the establishment of School Governing Councils. The councils would be composed of an equal proportion of parents of enrolled students, teachers working in the school, and community members. A student representative would serve on secondary school councils. Representatives would be elected exclusively by the constituencies they represent, with parents voting for the parent *and* community representatives. The councils would be charged with hiring the school principal, setting school policy, and electing representatives to a proposed District Coordinating Council. In collaboration with the principal, School Governing Councils would approve objectives for the school curriculum, the school budget, and a school improvement plan.

Parental involvement also has been a critical component of East Harlem District Four's schools of choice, discussed under Recommendation 2C. Educators responsible for developing the model describe parental involvement as a correlate of good education and the key to creating their effective school environments. The district's commitment to parental involvement has been translated into parent advisory committees at each mini-school which are open to participation by parents with children enrolled in the school. The small size of the mini-schools, combined with parental choice of schools, has made it easier for parents to interact with school faculty and influence school policy. Thus, there are many examples for schools to model.

Insofar as the responsibilities of the Parent-Community Governing Bodies are concerned, this report recommends that they be empowered by state law to make policy and approve recommendations of the School Coordinating Council in the following areas:

- School calendar (year-round or traditional) and designing a day-to-day schedule (see Recommendation 4C).
- School discretionary budget (see Recommendation 3A)
- School development plan (see Recommendation 4A)
- Providers for Post-10 options (see Recommendation 1C)
- Hiring and replacement of administrators, teachers, and non-tenure track instructors (see Recommendation 3A)
- Textbook selection and plans for curriculum and course offerings which are supplemental to the core competencies (see Recommendations 1B and 2A)

Districts and district school boards would continue to play a crucial role in facilitating school operations. They would retain all legal and financial responsibilities not specifically delegated to schools. They would be responsible for the salaries and benefits of tenured teachers, administrators, and classified employees; student transportation, lunches, and other special services; facilities building and maintenance; and other district administrative costs including those pertaining to desegregation and parental choice. They also would have responsibility for desegregation and developing options for parental choice, and they would "sell" staff development and other services to the schools.

There is little question that the district role would change dramatically under these recommendations. For one thing, it would become more manageable. But it is hard to predict how the district role would evolve. Certainly more diversity would result, and surely board members and administrators who believe in the necessity of school autonomy will develop collaborative relationships with schools that can help move the entire educational system to a new plateau of performance.

2. **Teacher Participation.** *A School Coordinating Council would be established at each school. This council would be a planning and advisory group, consisting of the principal and teachers, which would be an institutional mechanism for the participation of teachers in critical educational decisions.*

The School Coordinating Council (an extension of the School Site Council operating under the School Improvement Program) would enable teacher participation in school decisionmaking. Educators in California have accumulated much experience in using similar institutional ways of ensuring teacher participation. A School Coordinating Council would not diminish the principal's effectiveness. On the contrary, effective schools require strong leaders who work with teachers to develop a shared vision of school philosophy, purpose, and program.

Specifically, under this proposal, a School Coordinating Council (SCC) would be established at each school. It would be a planning and advisory group, consisting of the principal and teachers. The Council would represent an institutional mechanism for teacher participation in critical educational decisions. This report does not specify the exact composition of the SCC or the method of election or appointment of its members. Similar to the School Improvement Council's School Site Council, legislation and the State Department of Education might specify broad guidelines that schools could interpret locally.

The intent of this mechanism is to enable teachers and principals to work collegially to define the school's educational mission. Teacher representation would provide teachers with an opportunity to become actively involved in long range planning, hiring prospective colleagues, developing school philosophy, setting staff development priorities, and managing school resources. The SCC would have the legal authority to develop and implement decisions in the following areas:

- Creating and coordinating the school's curricular and instructional offerings. For example, the SCC would determine the appropriate combination and number of instructional and curricular teams and mini-schools.
- Developing a school-wide plan for implementing the school's transition to mastery learning (see Recommendations 1B and 4).

- Selecting textbooks and other instructional materials to support mastery of core competencies.
- Establishing a school calendar (year-round or traditional) and designing a day-to-day schedule with the input of all teachers.
- Planning and coordinating staff development (see Recommendation 3C).
- Participating in the process for hiring new principals and other site administrators.
- Participating in the hiring process for new teachers.
- Recommending and approving Lead Teachers (see Recommendation 5A)

Teacher participation in the above decisions would represent the first step in empowering teachers to have the flexibility and decisionmaking authority to meet the needs of students. Similar policies have been found to have significant payoff in private corporations that actively delegate authority and provide employees with the discretion and support they need to utilize their professional judgement and expertise. Firms that develop flexible, decentralized approaches to management and decision making show higher long term profitability and financial growth in comparison to their more hierarchically controlled counterparts (Kantor, 1983).

Research on alternative schools -- schools which have experimented with alternative governance structures -- suggests that parallel innovative approaches have been successfully applied in public schools. Alternative schools are defined by the following characteristics: teacher autonomy and choice, and flexible teacher and administrator roles (Raywid, 1985). Not surprisingly, alternative school researchers have found that alternative schools are most successful when the school focus, size, and curricular and programmatic offerings are designed by teachers at the school site. In fact, school site autonomy has been identified as the most important indicator of an alternative school's ability to function effectively and sustain itself organizationally.

The largest national survey of alternative schools found that many of these schools have capitalized on their flexible organizational structures to meet both the professional needs of teachers and the learning needs of students. For example, 92 percent of the alternative school teachers surveyed reported that they had "extensive control over teaching and learning activities." Alternative school staffs report that their job descriptions transcend the role of teacher or administrator. Teachers assume responsibility for community outreach, while administrators teach. Power is distributed and shared among the entire staff. The structure of the alternative school enables increased sharing of information, instructional strategies, and curriculum between teachers. Teachers tend to teach with other teachers rather than work in separate classrooms (Raywid 1982). Moreover, recent surveys of public alternative and magnet schools have found a positive association between teacher satisfaction and student achievement (Raywid, 1982).[6]

The Dade County School District in Miami, Florida has begun implementing another model for school-based management. The district is beginning a four-year pilot project to decentralize authority at the school site. Thirty-two of the district's 253 schools have adopted and implemented district-approved proposals for school site management. Teachers and school administrators share in the decisionmaking process. Staff have been active in developing detailed proposals for approving and implementing a school budget, determining student to teacher ratios, alternative school structures, and scheduling patterns.

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[6] Integrating teachers into the school decisionmaking process might help to improve the teaching profession (and schools) by attracting high quality teachers (The Carnegie Forum on Education and the Economy, 1986). Researchers and commissions have advocated increasing teacher decisionmaking authority as a component of their overall recommendations for strengthening the teacher profession and improving schools (Goodlad, 1984; Sizer, 1984; California Commission on the Teaching Profession, 1985; The Holmes Group, 1986).

Proposals are evaluated by a committee composed of district administrators, union representatives, and teachers on a school-by-school basis. Proposals are evaluated according to their decisionmaking model, use of personnel, budget, school operations, rationale, hypothesis, process for incorporating parent and community input, proposed educational impact, and peer evaluation (Dade County Public Schools, 1987, 1988). Proposals approved for the 1987-88 school year reflect the specific needs and priorities of the individual schools. No two plans are alike, nor are they expected to be.

Given California's history of working with school site management under the School Improvement Program, the recommendation proposed here could be phased in quickly -- within three years. It is time for the more complete form of teacher responsibility for school operations advocated by this report.

3C: EXPAND TEACHER RESPONSIBILITIES AND PROMOTE TEAM APPROACHES TO INSTRUCTIONAL MANAGEMENT

The state should encourage the development of new school management structures by creating new categories of teachers, and by providing models and training in the use of differentiated staffing and teacher teams.

1. **Lead Teachers.** A new classification of teachers, called Lead Teachers, would be created. Lead Teachers would have supervisory responsibility under the overall administrative direction of the principal (see Recommendation 5A).

2. **Non-tenure Track Teachers.** The state would certify a new category of non-tenure track teachers, called Assistant Teachers, who would be hired by schools (not districts) on renewable contracts and work under teacher supervision. The state also would enable schools to hire Adjunct Teachers who would be experienced professionals from non-teaching fields interested in doing limited teaching.

3. **Teacher Teams.** Schools would be encouraged to organize into teacher teams, consisting of one or more Lead Teachers, regular Teachers, and Assistant Teachers. Each team would share responsibility for specific groups of students throughout their years of school attendance. This organization would facilitate the implementation of mini-schools, and would enable a team of teachers to be responsible for each student (see figure on facing page).

4. **Incentives and Staff Development.** The state would offer school incentive grants to further the dissemination, planning and implementation of team approaches and mini-schools. These awards would include funds for staff development (see Recommendations 2C and 4A).

A. The Need

Teachers are generally overburdened and isolated from one another. In high school, classes are typically 50-60 minute time blocks with 30-40 students; each teacher has five classes a day. Teachers who are motivated to break out of this structure lack the support or ability to interact with staff on a school-wide basis to develop and implement fundamental change.

The predominant structure for teaching and learning continues to be the self-contained classroom. This type of compartmentalization tends to isolate teachers. Teachers have infrequent opportunities to share experiences, discuss students, collaborate on curricula, or observe their colleagues' instructional strategies.

A majority of teachers have never observed teachers in other classrooms, and teacher to teacher contact is generally limited or nonexistent (Goodlad, 1984; Sizer, 1984).[7] Opportunities to learn from one another through interacting and sharing knowledge and experience with colleagues are limited to brief encounters in hallways, classrooms, or lunch rooms. But as Powell, Farrer, and Cohen (1985) note:

> It is more important to organize school time so that such conversations can occur, than to impose an ideal curriculum on schools from the outside... rearranging school time in this manner empowers teachers by placing them in the center of educational decision-making rather than on the periphery.

Under the current system, new teachers are denied the opportunity to work with and learn from their more experienced colleagues. Effective, experienced teachers are denied the opportunity to share successful teaching strategies and curricula. It is not surprising that teacher isolation has been found to be one of the biggest barriers to teacher professional growth and development (Rosenholtz, 1984).

Some schools have begun to experiment with peer coaching which allows two teachers to work together. Teachers do not necessarily team teach but they do observe one another in the classroom. Teachers have reported that these models have helped to minimize isolation and have introduced a mechanism for teacher sharing and collaboration. Unfortunately, the current structure limits the implementation of these practices. Scheduling conflicts continue to interfere with planned observations and teachers often cannot get release time to observe other classrooms during the school day. Since release time pulls teachers out of their classrooms, under the current structure, a system of teacher observation could be disruptive for students in the traditional classroom setting.

Indeed, student learning is the real casualty of this system. Most students have little contact with teachers, and students in trouble tend to have even less contact. The lack of adult contact has been cited as a factor contributing to the increased number of dropouts. Given California's severe problem in this area, the public schools can no longer tolerate a system where teachers do not have the time to get to know most of their students -- and vice versa. However, more time is impossible in the present structure. Rigid schedules, large student loads, the lack of differentiation in teacher jobs, and the labor-intensive instructional approach followed in most classrooms mean that adequate time is not available for teachers to help all students learn to their potential. The conclusion seems inescapable: the organization of teachers' time must be changed.

The recommendations in this section speak to this need, but the proposals presented in Recommendations 4 and 5 are also needed.

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[7] 75 percent of the teachers surveyed in the Goodlad study reported that they would like to have the opportunity to observe other teachers (Goodlad, 1984).

B. Elaboration of Recommendation

Figure 3 also suggests another fundamental revision in the management structure of schools: that teachers have differentiated roles and be organized into teams. This report recommends that new categories of teachers be defined as shown in the figure. Recommendation 5A specifies the certification requirements and procedures for these types of teachers. The discussion here will indicate the role they play in a reorganized school environment.

Lead Teachers would take on some locally-defined supervisory responsibilities. Many different models could be used, including variations that are being tried across the country or have been used in the past. A basic building block that would enable flexible variations is suggested in **Figure 3**. In particular, Lead Teachers would serve a supervisory role for a small number of teachers; together they would constitute a team that has joint responsibilities for a group of common students. They would plan together and, in some instances, engage in team teaching. Another section will elaborate on the instructional aspects of this team approach (see Recommendation 4). The point to emphasize in this section is the new management approach that becomes possible. In this vision, teachers would no longer be isolated. Instead, they would share responsibility for a group of students. Ideally, one or two teams could join together to form a school-within-a-school, which would develop its own identity and educational program. Students would enroll in a school-within-a-school and remain there throughout their elementary or secondary school experience (of course, students could transfer from one school-within-a-school to another). Thus, small school environments could be built, with students knowing each other and teachers knowing students.

Another element of this approach is the Assistant Teacher. Though Assistant Teachers would not have the rigorous training of Teachers -- and therefore would not be given the full responsibility of Teachers -- they could play a specialized role in a team approach. As explained in a later section, a more flexible approach is needed to the delivery of instruction in order to provide high levels of higher order skills for all students. The provision of Assistant Teachers would increase the adult to student ratio in schools-within-schools, allow for more flexible scheduling, and enable a more efficient use of Teachers' time.

The nature of teacher teams would be locally determined -- they should not be mandated by the district or the state. Recommendation 4A discusses staff development and practitioner Institutes for School Development that would help develop, disseminate, and provide training for the team approach. It would be up to administrators and teachers to design models that fit their circumstances. However, this report can suggest design features that teacher teams might include:

- **Team Composition:** Teacher teams would be composed of a Lead Teacher, Assistant Teachers, and Adjunct Teachers, with numbers varying according to the number of students and team needs. In some cases, Assistant and Adjunct teachers could belong to more than one team.

- **Variation Between Teams:** Teams could be formed to develop a total program for a cohort of students, or joined together to create a multi-disciplinary mini-school.

- **Creating a Small School Environment:** Where practical and appropriate, teams would teach the same group of students for all elementary or secondary grades. For example, a multi-disciplinary team consisting of one Lead Teacher, three Teachers, and three Assistant Teachers might be responsible for 120 students from grades 7 to 10. Or, two or three teams might be grouped together while still having the same cohort for their entire time in secondary school. Students would experience this arrangement as a small school environment where they could interact with the same teachers over a significant period of time.

- **Teams Responsible for Maintaining Individual Learning Plans for Each Student:** The close contact with students afforded by the team approach could be greatly enhanced if all teams were responsible for maintaining an Individual Learning Plan for each student. Members of the team would meet regularly to review the accomplishments and problems of each of their students and meet regularly with students and their parents to review the students' progress.

- **Choosing Team Members:** Ideally each teacher could help form and select the type of team (or mini-school) with which they would want to work.

- **Students Choose:** Students and their parents would have a choice. Students and parents could choose among teams and mini-schools within larger schools which would be composed of one of more teacher teams (see companion proposal 2C).

The ultimate benefit of a team approach is the time afforded teachers to manage the learning process of each student. This liberation of time depends on the ability of schools to devise more flexible course arrangements (see Recommendation 4C) and use technology effectively (see Recommendation 4B). The point to be made here is that Lead Teachers and Teachers would have the flexibility to manage instruction more efficiently.

Teams, especially teams working with the same cohort of students over time, would provide students with a small personal environment. Students would have the opportunity to know more than one teacher and teachers would have the opportunity to get to know a small group of students very well. Teachers' ability to get to know students on an individual basis would more likely be successful in gaining student respect. Students who get to know and trust teachers would be more apt to become role models for other students. Academic and personal counseling and advising would be a natural by-product of more personal relationships between teachers and students.

Team instruction would provide a particular benefit in large schools. Teams would help to reduce the extreme isolation and alienation that is characteristic of large schools. There is some evidence to suggest that students working in smaller, more personal settings are less prone to drop out.

Students and their parents would have a voice in choosing the mini-school and therefore would be more likely to have a direct interest in the theme, subject matter, and program emphasis. Moreover, research suggests that students are more committed and less likely to become disciplinary problems when they are working in smaller settings (Raywid, 1982).

In addition to the direct impact of teacher teams on student learning, the literature suggests an indirect effect: helping teachers become more effective in their jobs. Teams would provide a formal structure for teachers to get to know one another and communicate, foster collegiality and a healthy school climate. Teacher input to team colleagues and new personnel would help build a shared community within team units and throughout the entire school. Organizational and alternative school research indicates that the ability to choose one's co-workers and assignments is closely associated with developing a sense of community in the work place and in schools (see Kantor, 1983; Raywid, 1987). Research on effective schools has consistently identified a school-wide commitment or shared community of beliefs as a correlate of effective schools (Purkey and Smith, 1978; Stedman, 1987).

Teams provide the basis for collaboration and discussion on a wide variety of school related issues. Under the proposed system *all* teachers would have the opportunity to tap into a previously inaccessible resource: other teachers.[8] New teachers would have time to make a smooth transition from teacher training programs to the classroom. More experienced teachers could share their skills, knowledge and experience with new colleagues. Teachers previously struggling with particular students or lacking the critical skills to improve their teaching effectiveness would be able to ask other teachers for support and suggestions on a continuing basis.

Restructuring the teaching profession into teacher teams would address teachers' professional needs and would transform the nature of learning in school for teachers and students. Teachers would no longer remain isolated in self-contained classrooms or be placed in rigid departmentalized structures. Rather teacher teams and mini-schools would provide smaller, high quality learning environments. Teacher teams would allow teachers to share knowledge and experience through an informal process, reducing isolation and enhancing collegiality.[9] Research on teacher motivation suggests that expansion of flexible, working relationships would go far to address the professional needs of teachers working in more traditional public school settings (Bishop, 1977; Glenn and McLean, 1981; Lortie, 1975; and Bredeson et.al, 1983).

The teacher team model proposed here has been used in various forms in many schools since the 1960's. One current example is the Nautilus Middle School in Miami, one of five schools in the district which reorganized its schools into teacher teams. In the schools' view, a mini-school configuration would "allow teams of teachers to work in a cooperative effort to ... improve student attendance and student achievement." To realize this goal, the school would also begin to experiment with a variety of teacher team models -- including a differentiated staffing model which is to be composed of department leaders, team leaders, and teacher deans.

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[8] Teachers in some schools have been experimented with peer coaching and collegial coaching models. Within the constraints of the current system (rigid scheduling; self-contained classrooms; and sporadic staff development) peer coaching has gone a long way in addressing teacher isolation and supporting teacher-teacher interaction. Teaching teams will build upon these models by increasing the number of teachers who work with one another and in combination with the other reforms will create a structure which supports teacher collaboration as the rule -- rather than the exception (for more on peer coaching see: Neubert and Bratton, 1987; Wildmen and Niles, 1987; and others in Educational Leadership, February 1987).

[9] Teachers working in collegial settings perceive themselves to be more skilled and experienced than teachers in isolated classroom (Ashton et al., 1983; Chapman and Lowther, 1982; Cohen, 1983).

Members of the Coalition of Essential Schools have developed and employed a wide range of successful team teaching models. Arrangements vary to suit student needs -- for example, some schools employ team teaching for one two to four-hour block per day, while others have reorganized into one or more schools-within-schools which are composed of teaching teams or autonomous teaching units. For example, at Coalition member Pleasure Ridge High School, Kentucky, a four period geography course is taught by a team of three teachers working with eighty students. The school currently has plans for expanding the team concept. Next year, three teachers would be teamed with 120 students for a four-block period. Attendance has gone up, and disciplinary referrals have gone done.

Team teaching takes on a variety of forms at schools in the Lincoln Unified School District in Stockton, California. At Lincoln High School, three teachers plan, coordinate and teach a multidisciplinary biology, anatomy, and physiology lab for groups of 90 students. Two teachers at the middle school level have developed a two-period course for 60 students in the 7th and 8th grades.

Teachers at the Mable Baron Elementary School team teach at the 4th, 5th and 6th grades. Teachers at each grade level have a common planning period where they plan and coordinate group activities, curriculum and instructional strategies. Team teachers have input in the hiring process and make a conscious effort to include teachers with a range of experience and backgrounds. For example, one team has art, math and science and language arts specialists. There are approximately three teachers and three para-professionals for 100 students at each grade level. Team composition varies depending on student and team needs. For example, one team is lead by two Lead Teachers and three paraprofessionals. Students are divided into smaller, heterogenous groups, and are rotated so that they work with all teachers and associate teachers. Creative scheduling, group activities, and support from paraprofessionals provides the team with flexibility to meet with small groups of students. This strategy has been in operation for twelve years and is supported by parents, teachers, and the district.

Many other examples could be cited. There seems little doubt that teacher teams are practical. Without the widespread adoption of this approach, it is difficult to see how public schools will be able to have all students master the skills needed for a full and productive life in 21st Century.

RECOMMENDATION 4

MODERNIZE INSTRUCTION

> *What we have found out in the last ten years is that effective learning programs for most children can be constructed . . . The limitations, if any, are not in the children, but in our lack of inventiveness in using what we already know about human learning.*
>
> Ralph Tyler, Educating All Our Children

The preceding recommendations attempt to create a situation where educators can be free to teach to a new and higher standard of excellence. Is this sufficient? Would teachers be able to provide the instruction necessary to reach a new plateau of learning for all students?

The answer is probably no for two reasons. First, under current arrangements teachers are so overworked, over-scheduled, and overburdened that they have little time to devote their full attention to individual students. Although the use of teaching teams (see Recommendation 3C) could free some teacher time, its implementation would require a change in the rigid schedule of courses typical of the current system. Second, despite great advances in teaching and learning theory in the past two decades, most teachers have not been trained in these effective instructional practices either prior to or after becoming teachers. Research and practical information exist to transform teaching so that students can learn much more. Only practical barriers stand in the way to making a true breakthrough. The purpose of this section is to propose steps to enable proven effective modes of instruction to become the norm in California education.

The Need to Change Instruction

Research shows that many teachers unknowingly employ instructional practices that are derived from faulty pedagogic assumptions and techniques (Goodlad, 1983). The following basic assumption is implicit in the teaching approach often taught in colleges of education and practiced in many schools: a person's ability to learn is an immutable trait, and this inherent ability is the dominant factor in determining how much a student learns. Thus, many teachers believe and *expect* that for each group of students, some will learn well and others will learn poorly.[1] Research has shown that many teachers provide positive feedback and encouragement primarily to those students they perceive as being easier to teach. In effect, teachers, administrators, and even parents, assume that fifteen or twenty percent of the students are "A" students, and teachers teach accordingly.

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[1] In a 1973 study (Good and Dembo), 163 classroom teachers were asked to estimate the percentage of their students who would "really master the material" they were teaching. More than half the teachers expected less than 50% of their students to do so and only 6% expected to see 95% of their students really master the material.

These assumptions and practices relegate more than half the children in California to lower levels of achievement. Research has shown that the ranking of students from the early grades to higher grades seldom changes (Bloom, 1981; Block and Burns, 1976). Early placement in a low achievement category (see Recommendation 1B) often means that a student is put into a learning disabled category or provided with remedial instruction which allows few students to ever catch up with their age cohort. This is a recipe for poor performance, low self-esteem, and high dropout rates. It is a reality of California public schools that early low achievement placement is correlated with students' economic, social, and racial backgrounds (The Achievement Council, 1984, 1988).[2] It is as if there were a tacit understanding that poor and minority children have innate deficits which schools can cope with but not overcome. If one believes this construct, despite all attempts at reform, many children -- particularly poor and minority students -- will continue to be unable to master the core material necessary for a full and productive life. This conclusion is unwarranted and unacceptable. Basic assumptions must be changed.

Figure 4 illustrates the results across today's system of the practices described above. The curve on the left, called a normal or bell curve, can be thought of as representing the results on standardized tests such as the California Assessment Program. The average score across the state is well below the level of student achievement that is needed for the future. The level marked high performance level should be the standard to which teaching should be oriented. But raising standards to this level must start with raising expectations about what students can learn.

Rather than expecting only fifteen percent of the students to receive an "A", that is achieve at high performance levels, teaching should be geared toward expecting eighty-five percent of students to master material sufficient to receive "A"s. The curve on the right in **Figure 4** illustrates the minimum distribution of performance that students are capable of and that teachers should expect. Though the figure is illustrative of what is possible, it is based on research and considerable practice in thousands of classrooms across the country using methods of instruction called "mastery learning" and "cooperative learning". Using these methods, students have learned more, regardless of their economic, social, and racial backgrounds, and most have mastered at high levels of achievement.

Mastery learning assumes that the quantity of material a student learns depends on the amount of time for instruction and the methods of teaching employed. The theory begins with the assumptions that all students can learn given sufficient time and teaching methods that fit children's learning styles. In simplified terms, mastery learning works in the following way:

- Teachers identify in advance the level of learning that they expect *all* students to achieve;
- They divide the curriculum into small units -- for example, what could be learned in two weeks -- and provide instruction geared to students learning the unit;
- After each period of instruction, students are tested to see how much they have learned;

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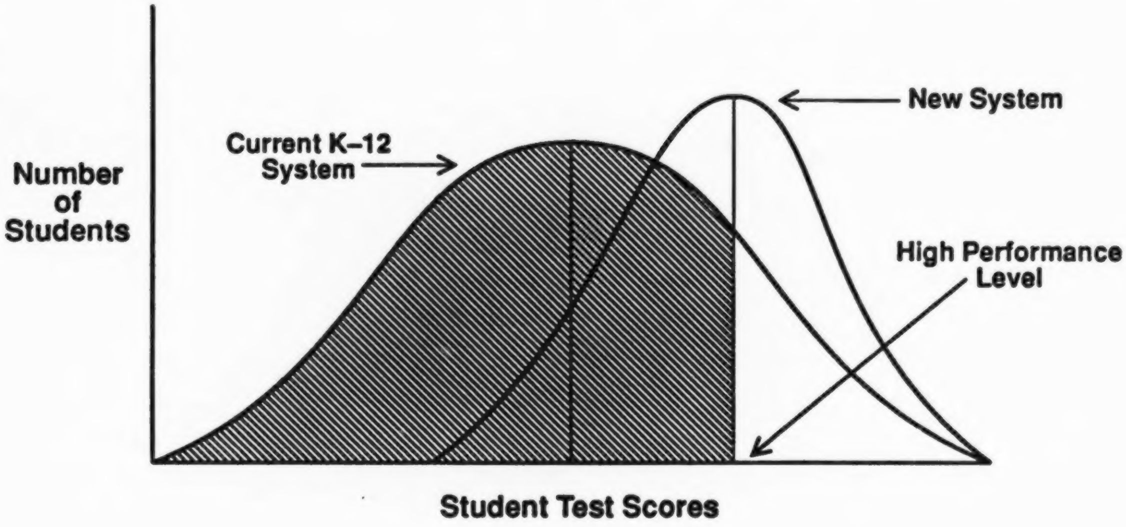
[2] The Achievement Council (1984) reports that: "students who have not been exposed to books in early childhood, whose parents do not speak fluent or standard English, or who have not learned their letters or numbers are grouped together. This grouping is justified as ability grouping, but ability as it is measured for these purposes depends as much on previous learning as it does on innate intellectual ability."

Figure 4

MORE STUDENTS CAN LEARN MORE

Average student can perform
above 80% of students in current system



- Students who have not learned at the mastery level are given more and different types of instruction until they master, and students who have mastered the material serve as peer instructors or receive additional material beyond the expected mastery level;
- The class continues as a group to the next curriculum unit after all students have reached the mastery level.

Research shows that all students, not just the so-called low achievers, learn more with this system. They can learn both rudimentary and higher order skills, and have higher rates of retention of material. The research indicates that:

- The use of mastery learning and related teaching-learning strategies at all levels of education from primary school to the graduate and professional level typically results in about four-fifths of students achieving at the same level as the upper one-fifth taught by the same teacher (Bloom, 1981). Not only do students do well on tests of mastery of the specific material taught, they also evidence higher measures of retention and higher mental processes when compared to the upper one-fifth of students in the control group. Almost all of the mastery students who use corrective measures achieve above the average of the control group (Bloom, 1976; Block and Burns, 1976).
- If mastery learning procedures are used in the introductory courses in a subject area, students tend to maintain the new learning approaches in subsequent courses in the same field with less need for further special help or extra time (Block and Burns, 1976).
- If students are exposed to mastery learning on a large scale (e.g., in all their academic courses), students appear to show major gains in "learning to learn". They devote more class time to active learning, and they appear to enjoy it more. They develop skills in providing feedback to themselves in determining what they have learned well and where they need to improve their skills. Students become more skillful in seeking answers and securing help from books, friends, and teachers when they need to overcome special difficulties in a subject (Bloom, 1981).

Mastery learning places the responsibility for student learning on the teacher (as well as the student). It also enables teachers to eliminate pedagogic practices that have been shown to be ineffective and often damaging. For example, most instruction in today's classes follows a curriculum in a sequence that is locked into the calendar. The class proceeds from week to week regardless of whether some or even most students have mastered the material. This practice is guaranteed to create situations in which students consider themselves to be failures because they have not kept pace with an arbitrary predetermined schedule. The lock-step curriculum, therefore, can be extremely damaging to a child's or a youth's self-esteem and motivation to learn or continue in school. Moreover, students who fall far enough behind are relegated to remedial courses from which few students ever recover.

In contrast, the pace of instruction in mastery learning is determined by the amount of material students have mastered, not by the calendar; additional instruction is provided at the point where students lack understanding. Unlike the standard practice in today's system, students in a mastery learning system would be promoted according to achievement and achievement would be possible for a much higher percentage of students. Over time, the institutionalized practices of remedial courses and low expectations could become bad memories.

Another set of practices discussed in an earlier section is tracking and ability grouping: the separation of students into groups according to their presumed ability. This practice automatically assigns most students to instruction that will produce lower achievement instruction. Students in lower ability groups are expected to learn less, are provided with less material, and less of all the other things that produce high achievement. Mastery learning uses heterogeneous grouping of students, and thus could put an end to ability grouping and tracking.

Cooperative learning is a complementary pedagogic approach that can increase the achievement of all students. It consists of a repertoire of strategies in which students work together in groups with their peers to achieve a common goal. Teachers assign students to 4 to 6 member groups deliberately composed of high, medium and low achieving students; males and females; and different racial or cultural backgrounds. Each group is a microcosm of the class in academic achievement, sex, and ethnicity. All cooperative strategies attempt to maintain individual accountability while encouraging group responsibility. The strategies all make the group responsible for the learning of each individual and to promote the attitude that the group does well if each individual in the group does well, and vice versa.

Studies of cooperative learning have shown that student achievement is increased for all types of students, but most particularly for the normally low achieving students. The positive effects on student achievement appear just as frequently in elementary as in secondary schools, in urban, suburban, and rural schools, and in diverse subject areas from mathematics, to English, to social studies. In a review of 122 studies conducted between 1921 and 1981, Johnson and Johnson (in Slavin, 1985) found that:

> Cooperative learning experiences tend to promote higher achievement than do competitive and individualistic learning experiences. The average student working in a cooperative setting achieves at about the 80th percentile of the students working within a competitive or individualistic setting. These results hold for all age levels, for all subject areas, and for tasks involving concept attainment, verbal problem-solving, categorizing, spatial problem-solving, retention and memory, motor skills, and guessing-judging-predicting.

Moreover, studies have found that cooperative learning has a positive effect on increasing cross-racial friendships, on making the mainstreaming of handicapped students easier, on developing student self-esteem, on promoting cooperative attitudes in schooling, and in working with others. Mastery learning will help shift students' attitudes towards high performance, and cooperative instructional strategies will help create a positive attitude toward working with others. The combination of these attitudes is precisely the orientation that California citizens need to lead productive lives in the twenty-first century.

In summary, the information exists to transform instruction in California so that a new plateau of student learning can be attained. The policy problem is to determine what needs to be done to implement mastery learning and cooperative instructional strategies in classrooms throughout California. The next section discusses barriers inherent in the way schools currently operate that prevent teachers from using more effective teaching methods.

The Importance of Flexible Educational Programs

Ironically, the more effective instructional strategies discussed above cannot be implemented because of the way the typical school operates. There are two interrelated barriers: teachers are overburdened, and class scheduling follows a rigid, uniform, and inefficient formula. California has one of the nation's highest student to teacher ratios. This creates a severe problem for classrooms that operate in the traditional way -- namely, a lecture style format with one teacher facing about 25 students (though many California classrooms use aides, particularly at the elementary school level). At the secondary level, this problem is compounded by a rigid scheduling of classes. The average teacher has five classes a day, five times a week. Each class contains 30-35 different students and lasts about 55 minutes. Thus, a secondary teacher sees over 150 students a day for an average of very few minutes per student. Teachers, in short, do not have sufficient instructional time, and probably not enough energy, to use effective teaching methods for all their classes (Sizer, 1983).

The solution to this problem requires that the role of the teacher and the design of class schedules be reconceptualized. Recommendation 3C proposed that teachers work in a team, which would be part of a mini-school within larger school settings. The team would have a Lead Teacher as supervisor (though the exact nature of their supervisory role would be locally determined), regular Teachers, and Assistant Teachers. Working cooperatively with the principal and School Coordinating Council, the team could design flexible schedules. For example, some classes could be taught only three times a week, perhaps for an hour and twenty minutes on Monday and Friday and one hour on Wednesday. Some classes could be arranged so that they would have a large number of students on some sessions, whereas other classes would have a much smaller group of students. Moreover, some students might work on individual projects and assignments some of the time requiring teacher supervision rather than direct instruction. In other words, educators working together could design more efficient scheduling that would allow greater utilization of teacher expertise and produce more effective instruction.

The reforms proposed in an earlier section that provide greater autonomy for schools to design their own educational program free from excessive state or district regulations support the possibility of flexible scheduling of classes. The introduction of Assistant Teachers promotes flexibility by providing more adults available to oversee student learning. Assistant Teachers, who would be hired by the school itself, might be specialists in subject matter areas or in the operation of cooperative learning strategies. The Teacher with a class of forty students might utilize an Assistant Teacher to provide extra individual instruction for students who have not mastered a curriculum unit while the Teacher is supervising student peer instruction and providing enrichment material for other students. The team approach offers many possibilities.

Clearly, operating schools in this flexible manner using mastery and cooperative techniques is complex. Not only will teachers and administrators have to be trained in operating these more effective approaches, they also will need to use computers for managing schedules. The state-of-the-art in computer technology has advanced to the stage that the complex record keeping and schedule planning needed for flexible scheduling and mastery learning strategies is feasible. The only issue is for teachers and administrators to learn to use the computers and develop operational programs for classroom and school management. An investment by the state in the research and development needed to make such computer usage widespread would be a wise investment indeed.

Educational technologies also should play a more direct role in instruction. Computer assisted instruction, video technologies linked to computers, and interactive video with remote connections hold great promise for supplementing the instructional methods and flexible scheduling discussed above. In limited situations, it has already demonstrated its effectiveness in individualized drill and practice instruction. Some people believe that computer-based technologies may virtually replace teachers or transform them into high tech librarians. A more realistic view is that the demand for computer use in the classroom will grow because the restructuring of education along the lines suggested here makes computer usage an integral part of creating an effective and efficient learning environment. As demand grows, the private sector will work closely with educators to develop more sophisticated software that will further aid student learning. The state should promote these developments in ways described in a later section.

In summary, more effective and efficient instructional methods can and should be used in California schools. Such methods will require training of teachers and administrators, freedom at the school level to develop flexible schedules, a redefinition of the roles of teachers and assistant teachers, and the use of technology as an integral part of school and classroom management and as a direct supplement to instruction. The remainder of this chapter discusses the following recommendations for enabling teachers and schools to modernize instruction along the lines suggested above.

> *Using state-subsidized Institutes of School Development, teachers and administrators should learn, develop, and implement effective instructional techniques and create more flexible learning environments that make use of modern technologies.*

4A: Redirect staff development to advance implementation of effective instructional practices

4B: Enable all schools to integrate technology into instruction and management

4C: Promote adoption of flexible educational programs

4A: REDIRECT STAFF DEVELOPMENT TO ADVANCE IMPLEMENTATION OF EFFECTIVE INSTRUCTIONAL PRACTICES

The state should consolidate staff development funding, provide funding directly to schools, and subsidize R&D and training institutes that would equip teachers and administrators to implement mini-schools, mastery and cooperative learning, year-round and flexible scheduling, and other effective instructional and school management approaches.

1. **School Planning.** Schools would be required to formulate school development plans (SDPs), which would delineate plans for all school restructuring and instructional modernization, including staff development plans for each teacher and administrator.

2. **Funds Redirected to Schools.** Upon approval of SDPs, schools would receive implementation funds, which would become part of School Discretionary Budgets. Current state funding for staff development and the School Improvement Program would be redirected for this purpose. Schools could purchase staff development and school development assistance from districts, Institutes, and other public or private providers.

3. **Institutes for School Development.** Using competitive contracts, the state would supply start-up funds for Institutes for School Development. These autonomous Institutes would provide intensive staff development for all Lead Teachers and Administrators, who would help develop and disseminate comprehensive models for school development. Institutes could consist of diverse organizations -- for example, partnerships between universities, districts, and private businesses, or consortia of schools. The staff and governing boards of the Institutes would have to include Lead Teachers and administrators.

A. The Need

New instructional approaches cannot be mandated. Teachers and administrators must learn about the approaches, experiment with them so that they can adapt these ideas to their own setting, and engage in the often difficult process of implementation. To accomplish these steps, they need staff development tailored to their needs and circumstances.

Staff development is thus a critical element in school reform. It must, however, be done very differently from today for the simple truth is that while the state and districts currently spend large sums on staff development, much of it is ineffective.

Over a $1 billion per year is now being spent on staff development, even though most districts are unaware that such an enormous expenditure is being made (Moore and Hyde, 1981).

According to Little and her colleagues (1988), an average of about $1700 per year is spent on each certificated public school employee for direct costs of staff development programs. In addition to direct expenditures, totaling about $400 million per year, an additional $600 million per year is the result of salary increments that are given to teachers who take university courses or district-sponsored staff development activities outside of the work day (often on Saturdays).[3]

Few studies have found that this investment has had much payoff. Indeed the general consensus among researchers is that the current system of staff development perpetuates the status quo in schools:

> Staff development does little to alter the isolated and isolating character of classroom teaching or to engage teachers themselves in an intellectually rigorous examination of curriculum and teaching methods. It occurs on the periphery of school and classroom life, a situation exacerbated and perpetuated by funding patterns, by a marketplace glutted with short-term skill training, and by a daily and yearly schedule that squeezes staff development into widely separated days or hours. (Little et al., 1988)

These findings are particularly ironic because considerable research has identified effective approaches to staff development.[4] Despite this existing knowledge, districts (who control ninety percent of direct staff development costs) often offer and arrange staff development that is not relevant to teacher needs or is provided in ways that do not promote continuing support. This costly approach is further compounded by a statewide policy of salary increments for teachers who take courses to continue their training and a requirement for continuing education. Though appropriate in theory, these incentives are wasteful in practice, for teachers can fulfill the requirements by attending meaningless staff development sessions.

A systemic reason for the lack of effectiveness of staff development programs can be found in the web of regulations and the amount of centralization that surround their funding. Much available funding is dispersed as a part of various state and federal categorical programs and is therefore subject to diverse regulations. In practice, this fragmented funding pattern means that most staff development activities are either unfocused or are overly focused on specific areas that may be in conflict with one another or with more general development goals at the school site. The net effect: funding is spread thinly over diverse areas so that practitioners receive very little useful staff development.

This inefficient pattern is further compounded by rigid class schedules and rules assigning a small number of fixed and widely separated days to staff development. Given the current lack of flexible schedules typical of most schools, the reality for most teachers is that they are overburdened, they experience staff development as episodic and ineffective, and they have little say in the training they receive. In short, the present system of staff development mirrors the more general structure of schooling: it is top down, inefficient, and ineffective.

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[3] Amazingly, Little et al., (1988) estimate that teachers contribute in volunteer time another 60 percent of district and school direct costs.

[4] See Berman and McLaughlin, 1978; Berman and Gjelten, 1984; David, 1985; Fenstermacher and Berliner, 1985; Fullan, 1985; Griffin, 1985; Little, 1987; and McLaughlin and Marsh, 1979.

B. Explanation of Recommendation

Rather than continuing the current over-regulated, district controlled, and centralized system of staff development delivery, schools should have the primary responsibility for planning and implementing staff development programs. They should be provided with the resources needed for effective staff development from state funds set aside for this purpose, including much of the staff development funding that now goes to districts, counties, and regional agencies. Districts and other current providers should continue to offer staff development services, but should do so under contract to schools, which should also be free to purchase services from a wide range of public and private providers.

The state should provide seed money to start a series of regional, practitioner-based Institutes for School Development, which would be independent organizations that would provide services to schools on a fee-for-service basis. Teachers and administrators would participate in the operation of the Institutes so that their needs could be met and their knowledge tapped. Practitioners, including those at the school level, would lead the reform effort.

1. **School Planning.** *Schools would be required to formulate school development plans (SDPs), which would delineate plans for all school restructuring and instructional modernization, including staff development plans for each teacher and administrator.*

Perhaps the most successful aspect of earlier efforts to improve schools in California has been the increased planning capacity of schools . The School Improvement Program (SIP), for example, has helped public schools institutionalize mechanisms for coordinating their activities and projecting them to the future. This capacity is still limited, however, and must be nurtured if schools are to perform effectively under the decentralized system proposed here. The above recommendation broadens current school planning requirements to insure accountability and the continued growth of school-level planning capacity.

The recommendation calls for every school to submit a School Development Plan (SDP) in the spring before the allocation of their School Discretionary Budget (see Recommendation 3A and the discussion of the School-Based Program Coordination Act). The School Coordinating Council would be responsible for developing the plan (which insures that teachers working with the principal participate in the plan's design) and the Parent-Community Governing Body would have the authority to approve the plan (see Recommendation 3B). The plan would be sent to the district for comment and approval. The grounds for district disapproval of a School Development Plan would be narrowly restricted to legal, desegregation, and financial grounds which would be circumscribed by law. In the case of disapproval, the school would revise the plan or appeal the disapproval to the Board of Education. The intent of this review would be to insure that schools comply with necessary laws, but are otherwise free to plan their development according to school conditions and priorities.

The SDP would also be sent to one or more Institutes for School Development (see discussion below) for comment, but not for approval. This requirement is intended to insure that schools receive expert advice from other practitioners and institutions of higher education (where they are involved with the Institutes).

Current school planning requirements (other than those necessary to comply with specific federal regulations) would be phased out in favor of the single School Development Plan. For the first time in most cases, schools could plan comprehensively and bring all their programs under a single vision for the school. In particular, staff development for each teacher and administrator could be put into the context of overall school development planning, rather than as separate activities of each individual. In the context of teacher teams (see Recommendation 3C), it would be natural for staff development activities to revolve around teams and mini-schools, lending an even greater coherence to these activities.

2. **Funds Redirected to Schools.** *Upon approval of SDPs, schools would receive implementation funds, which would become part of School Discretionary Budgets. Current state funding for staff development and the School Improvement Program would be redirected for this purpose. Schools could purchase staff development and school development assistance from districts, Institutes, and other public or private providers.*

This recommendation proposes that staff development funds go directly to schools, decentralizing the current pattern of direct district funding and control. These funds would become part of the School Discretionary Budget (see Recommendation 3A), and schools would be free to allocate them as they wished, provided that their plans receive approval.

This report further proposes that the bulk of staff development funds currently allocated to districts, counties, and regional agencies be redirected to schools as part of their School Discretionary Budget. We are neither recommending a reduction in funding, nor an increase in total spending for staff development. Instead, the proposal is that the present level of funds (plus adjustments for inflation) be continued and that funds currently dispersed in categorical programs and under district control be focused at the school level. Schools will experience this shift as a substantial increase in staff development dollars.

About $1 billion (in 1987 dollars) are at stake in this conversion to direct school funding. Up to forty percent of this total could be converted relatively easily after a transition period because it consists of funding that is earmarked for staff development across a variety of programs. The largest portion of the funding, however, is the obligation for salary increments for teachers who have engaged in staff development activities. We recommend that the current requirement that teachers complete 150 hours of staff development as a condition for credential renewal be eliminated and incremental salary increases based on staff development experience (course units or the equivalent) be phased out. In the short-run, this change will not convert present expenditures into additional staff development funds for schools because the past financial obligations to teachers could and should not be rescinded. However, as new teachers enter the system, their salaries would not be incremented for staff development activities. A different approach would be taken that benefits teachers. In particular, Recommendation 5 calls for teachers to be treated as professionals. Under that proposal, they would be expected to stay current in their field and be given the support and time to do so. Their salaries would be increased by about 20 percent (in addition to increases to keep pace with inflation). In the long-run, this approach supports teacher professionalism and would eventually free staff development funds for use at the school level.

The direct funding of schools would enable them to purchase staff development from various sources. This report recommends that schools should be permitted to contract with districts, Institutes of School Development (see discussion below), counties, regional agencies, universities, other schools, or private providers for staff development services. This combination of funds and authority genuinely would enable schools to establish their own priorities and practices. It also would place market pressures on districts. Much staff development funding (about $400 per teacher, according to Little, 1988) pays for the salaries of district staff development specialists. Under this proposal, districts would have to sell staff development services to schools or reduce their staff.

3. **Institutes for School Development.** *Using competitive contracts, the state would supply start-up funds for Institutes for School Development. These autonomous Institutes would provide intensive staff development for all Lead Teachers and Administrators, who would help develop and disseminate comprehensive models for school development.*

California now has county and regional suppliers of staff development services. These suppliers always have had a conflict over whether they were arms of centralized policy or decentralized organizations responding to local needs. This conflict has increased recently as the state has sought to install a centralized vision of curriculum with the Model Curriculum Standards. The Teacher Education and Computer Centers, which are discussed in more detail in the next section, were a casualty of this shift toward centralization.

Regional organizations responsive to local concerns continue to make sense in California. However, in the more decentralized school system proposed here, such organizations should be free of central control. Perhaps the best way to insure their independence is to establish new organizations, called Institutes for School Development, that would be started with competitive contracts from the state but whose continuing income would depend on selling services to schools (on a fee-for-service basis).

The idea of semi-autonomous institutes or service centers that operate on a fee-for-service basis with a partial state subsidy is not new. For example, the Southeast Kansas Education Service began in 1976 and now offers over 100 services to schools, including staff development, on a fee-for-service basis. Their 1988 budget is about $10 million. Aside from initial seed money, the Center receives no state or federal funding. They depend exclusively on fees generated from satisfying their customers -- the schools. (See the next section for a more extended discussion of this example.)

Our recommendation proposes that the initial state contracts for the Institutes would provide seed money and a state subsidy. The contracts themselves would establish the basic requirements for the Institutes but not direct them in regards to the process of delivering staff development services. These requirements would be based on research and practitioner knowledge on how to carry out effective staff development. This report recommends that these requirements include:

1) An Institute could consist of a consortium of schools, districts, county entities, postsecondary institutions, and/or private businesses.
2) The staff and governing board of an Institute must include credentialed teachers and administrators (on assignment, on leave, or no longer teaching).
3) Each Institute would be required to do practitioner-based research, development, and training that would enable teachers and administrators to implement mini-schools, mastery and cooperative learning, year-round and flexible scheduling, and other effective instructional and school management approaches.
4) The staff development services offered to schools would include follow-on work at the school site to provide continuing support during implementation, not simply one-shot lectures or Saturday workshops.
5) Over a 5-10 year phase-in period all Lead Teachers and administrators would be eligible to receive training and participate in Institute activities. The minimum period of time for this activity for each practitioner would be 20 days in the year of their eligibility.
6) Some Institutes would be designated as providers of more specialized research, development, and training -- for example, in the use of technology (see Recommendation 4B) or language acquisition models (see Recommendations 6A and B).
7) Institutes could be commissioned to oversee a limited number of staff development demonstration projects intended to apply recent knowledge about effective practices, or test ideas developed by Institutes or other providers. For example, the projects could be designed to test alternative approaches to school-based staff development, work out practical applications of recent research findings, or try out cooperative arrangements (e.g., between local schools, or between schools and local universities) for which there is little prior experience.

A critical aspect of the requirements listed above is the role of practitioners. Teachers and administrators would not only receive staff development, they also would be involved in development and training for their peers. Moreover, Lead Teachers and administrators, after participating in Institute activities, would be expected to return to their school to implement the new approaches to effective instruction. They would be the cadre for reform and the nucleus of a practitioner network, weaving together the accumulated experience and wisdom of practitioners from all the Institutes.

Though the thrust of these recommendations is to decentralize staff development and make it practitioner-based, the Institutes might appear to continue a centralized mechanism for controlling schools. The Institutes are appropriate because the private market for staff development is dominated by services that do not produce results. In the past, districts nonetheless purchased these services. Schools and many districts currently do not have the experience and capacity to sort through this market and make effective choices. The Institutes represent a reasonable compromise. They would have independence from the State Department of Education and be governed in part by practitioners, but they would be able to bring together information and models on effective instructional and management practices on a regional and statewide basis. These practitioner-based Institutes would thus help guide restructuring across the state.

4B: ENABLE ALL SCHOOLS TO INTEGRATE TECHNOLOGY INTO INSTRUCTION AND MANAGEMENT

The state should launch a comprehensive program to insure that all schools can use computer-based technology effectively. The program should set state standards and models for technology purchase and use, give schools the authority and funding to purchase technological services, and provide incentives and staff training so that administrators and teachers can integrate technology into management and instruction in ways suited to local conditions.

1. **State Standards.** The state would set statewide standards for the purchase and use of computer-based technology (including related communication protocols) that would enable schools to network efficiently, use long-distance learning technologies, and create computer-based learning environments.

2. **Required School Planning and Direct Funding.** Schools would be required to submit a technology use plan (TUP) as part of their school development plan. Schools would be funded directly so that they could acquire technology services and equipment suited to their local needs (but compatible with statewide standards).

3. **Local Autonomy.** Schools could purchase equipment and services from districts, Institutes, or private providers of their choice.

4. **Institutes and On-Going Training.** The Institutes for School Development would provide on-going training of teachers and administrators in the purchase and use of technology on a subsidized fee-for-service basis.

5. **State Incentives.** The state would establish a new competitive grants program that would (a) reward uses of technology that increased teacher productivity and school efficiency, (b) provide matching funds for the formation of consortia of schools for the purchase of technology services, and (c) offer long-term R&D funding for the development and demonstration of computer-based curricula.

A. The Need

California's large enrollment growth will bring about severe teacher shortages and heavy financial burdens, unless schools install procedures that can increase teacher productivity. Along with the proposals discussed in Recommendation 5, computer-based technologies integrated with the modern instructional methods proposed earlier could dramatically alter the teaching and learning environment in schools. In the future, instruction could look quite different, and be both more effective and efficient. This section focuses on technology's role in this change.

Computers for example, could free teachers' time now spent on bookkeeping. Though there are no fully reliable estimates of how much time teachers spend on bookkeeping tasks that could be better handled by computers, the replacement of even fifteen percent (considered to be a low estimate by many observers) would greatly increase teacher productivity.[5] Similarly, school administrators spend considerable time on management activities that could be handled more efficiently by computers. Yet, few schools in California now take advantage of these efficiencies.

The promise of modern technologies goes well beyond accounting and bookkeeping. The effective instructional methods discussed in this report (mastery and cooperative learning, flexible scheduling, and year-round schooling) can involve complex time consuming record keeping tasks that are difficult to handle using manual methods, but that can be handled by computers. Thus, the integration of computers with classroom instruction may be key to the effective implementation of these instructional techniques across diverse school situations.[6] The state-of-the-art in computer technology has advanced to the point that such application is completely practical -- the only issues are how to implement it efficiently and disseminate computer-based school and classroom management practices to all schools.

The use of educational technologies in instruction may ultimately revolutionize the entire student learning process, creating the possibility of very different, and more productive, roles for teachers. The advanced use of educational technology is not, however, currently fully developed and must overcome serious conceptual, financial and practical problems before it can be employed to fundamentally alter the learning environment in most schools.[7] The recommendations proposed here speak to these issues.

Some technological applications have been used effectively for a long time, but for limited purposes -- for example, curriculum and instruction that make extensive use of computer assisted instruction (CAI) for rote instruction (Bork, Learning With Personal Computers, 1986). CAI has been used to help increase test scores for minority students, and therefore is sometimes heralded as a major step forward in confronting the learning problems of at-risk youth (Roberts, 1987). Although such applications are important and should be more widely used, this report takes a different approach. We believe that all students -- including minority students -- should be expected to learn to the same high level. This report calls for the level of expectations to include higher order skills needed for the 21st Century. CAI is most effective at helping students learn rudimentary skills that can be absorbed by rote techniques. Thus, the sole or extensive use of CAI for at-risk youth may help them gain rudimentary skills, unless further learning takes place, these students may be relegated to an inferior status because they have not learned problem-solving and critical-thinking skills.

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[5] One study sponsored by the Public School Forum of North Carolina (1987) concluded that North Carolina teachers spend 28.2 percent of their time on routine record-keeping, making announcements, transportation management, and meeting with parents and other community members.

[6] See Lesgold (1985) for a discussion of the capabilities of computers -- quick student response, practice with minimal prompts, student-controlled access, and rapid diagnosis -- that make them especially valuable in implementing mastery and cooperative learning.

[7] For an overview of many of these issues, see Levin and Meister, 1985.

Other educational technologies still in the research and development phase could help with the acquisition of higher order skills. For example, there are current applications using laser disks for rapid student or teacher access to audiovisual or printed media, or of interactive video programming to allow students to learn at their own pace from audiovisual material that responds to how quickly and in what ways students learn. These advanced applications deserve continued development, experimentation, and dissemination as they become practical for routine use in schools.

For the short-run, the state policy issue is to help schools overcome barriers to the widespread use of technologies that are currently practical; for the long-run, the problem is to prepare schools for the eventual intensive application of more advanced educational technologies. The next sections discuss these matters in greater detail.

The Current Use of Technology

Since the passage of Assembly Bill 803 in 1983, California has provided grant funding to about 60 percent of the K-12 schools for the purchase of computer hardware, video hardware and -- to a lesser extent -- computer software. Elementary schools receive an average of $8,000 each and for high schools, the average is $12,000. In addition, a small number of districts were funded to develop teaching strategies for using technology or to provide models of intensive technology use. All the state's schools were given a videocassette recorder. The state has also trained 1200 teachers in one of six intensive summer institutes and created six "technology in the curriculum" guides for teachers. Cumulatively this has cost the state $82 million. The state also encouraged school-initiated technology programs by requiring a 10 percent local match of all grant funding and by encouraging local businesses to contribute to technology transfer (Assembly Economic Development and New Technologies Committee, 1988).

These efforts have laid the basic groundwork for technology use in schools by decreasing the student to computer ratio from 41-1 to 35-1, and by raising the expectations of many educators (California State Department of Education, Office of Educational Technology, 1987). Nevertheless, during this same period, California's schools did not keep up with those of most other states in the number of computers per students and was only at the midpoint in the number of computers per school. In fact, California now ranks 44th among all the states in the availability of computers in schools, whereas in 1984 California schools ranked 32nd (Quality Education Data, 1988).

The main concern, however, is not the hardware count or even the number of minutes of use per student, but how computers and other technologies have been used in schools. In this respect, California schools show little leadership, nor are they far behind other states. Computers and related technologies have created a much larger impact in the work place than in schools. Most experts agree that in the schools information technologies have been treated as a fad to be tolerated, or at best, an additional device to supplement instruction (Watson, Calvert, and Brinkley, 1987).

Technology remains a "side show" in many schools, not often taken seriously as an instructional tool. For example, it is common for a school to locate one or two freestanding microcomputers in the back of a classroom for students who have finished their assignments early. Also frequently seen is the computer lab run by a single teacher or teaching assistant for computer programming instruction, drill and practice of arithmetic or grammar facts, or computer "awareness" instruction. Videocassette recorders are frequently employed to play pre-programmed tapes as a part of a class presentation, providing little or no opportunity for student interaction with the images presented. These practices function only to complement class instruction, rather than increasing teachers' effectiveness at providing instruction for 25 students.

These primitive uses of powerful technologies are functions not of teachers, but rather of the present reality of public schools. Most teachers do not have access to the simple tools taken for granted by managers in other fields: telephones, answering machines, duplicating machines, and computers with word processing and spread sheet software. Moreover, most technology now in the hands of teachers is not connected to any other resource: computers are not networked; videotape players are not integrated with computers; and telephones are not linked to telefax machines or modems.

Over time, sophisticated technology use becomes more difficult to adopt as teachers develop the habits of under-utilization and districts become accustomed to maintaining outmoded equipment. This lack of full utilization makes meeting any new teacher demand for software or data services extremely difficult. At the same time, it lowers the overall demand for educationally sophisticated technology.

Teachers cannot take advantage of the collective knowledge of their field without a trip to the district office library, nor can they consult with colleagues in the course of the work day without leaving their students unsupervised. They cannot access the records of students in their own class without maintaining a paper filing system.. They are at the mercy of mailboxes and flyers if they want to know about schedule changes, department meetings, statewide grant opportunities, or even the newest textbooks being adopted.

Teachers who become interested in using technology for instruction or as a productivity tool are generally on their own. Each teacher individually previews and rates a vast array of supplemental software, video tapes, or software guides; creates individual lesson plans around each piece chosen; develops idiosyncratic procedures for managing student records and grading; and adapts word processing and data base software to classroom use. All of these time consuming tasks require skills that teachers generally teach themselves.

There have been, and still are, institutes, corporate-backed experiments, and entrepreneurial efforts by start-up businesses and schools. Each has contributed in one way or another to incremental progress in technology awareness, and together they have created a small cadre of informed teachers. Ironically, in part because they were unplanned and uncoordinated, these efforts have also burned out many of the people best prepared to lead a grass roots change in technology use.

By and large technology use in schools is not well planned. There generally is limited school site planning in which to frame purchase and use decisions. Moreover, decisions of individual teachers or districts are rarely coordinated with School Improvement Programs, staff development plans, or curriculum revision plans. Districts are the only organizational entity required to submit educational technology plans, written to receive state funds in the form of educational technology mini-grants. Since districts usually encompass several schools at different levels, district planning reflects diverse schools and a broad range of student ages. Although district plans can reflect aggregate school demand, they can not emphasize the specific needs of groups of students or the distinct capabilities, proclivities and deficiencies of individual teachers (Pogrow, 1988). Moreover, unlike business, school districts generally pay the full cost of technology services within the year of purchase, without the substantial benefits of leasing. Current funding is a complex of categorical funding, grants, school discretionary budgets, and gifts. This mix of funding sources works against the planned acquisition of technology (Levin and Meister, 1985).

Despite several attempts over the last decade to reform education through the use of technology, the state currently has no articulated vision for technology use. Under the Brown administration, The Office of Appropriate Technology studied technology transfer, made recommendations and carried out a few activities aimed at developing a vision. This encouraged the Investment In People Program, which in turn gave way to the current Educational Technology Legislation and the now defunct Teacher Education and Computing Centers (TECC's). The Centers created a target for vendor marketing that temporarily focused demand. Their regional identity gave them only limited contact with schools, however, and eventually they became another competing source of information and assistance on technology. Some observers believe that they became a layer of bureaucracy between schools using technology and the state as provider of limited funding for technology transfer.

The statewide Educational Technology Committee and the Educational Technology Unit of the State Department of Education have functioned under the limited charge to promote technology transfer. They have initiated a number of creative plans to stimulate demand and provided much needed information to the state's teachers. However, without the authority to plan for technology use statewide or the resources to provide sufficient incentives for planning in schools, they have not been able to fill the leadership vacuum.

The Vision of Technology Use in Restructured Schooling

To implement the reforms outlined in this document, schools will require significantly better technology services than are currently available. New information systems will be required to support improved student learning and well-designed instructional modules will be needed to support higher levels of learning for all students. Such structural reforms as expanding options for parental choice of schools, flexible scheduling, and differentiated staffing will rely on the efficient use of technology services in managing schools, classrooms and the flow of information between them. Performance-based accountability and the expansion of local authority will require faster and more efficient systems for transferring information between schools and to the state.

As expectations for student learning are raised, teachers will have to have access to new and comprehensive information. Technology services could be used to give students and teachers rapid access to multi-media learning resources, such as first-hand accounts of historical events, simulations of scientific processes, applications of mathematical concepts, and selections from the literature of different cultures and languages. Both elementary and secondary students could use these resources much as students today use the school library; teachers could use them to enrich their own understanding.

As the focus shifts to providing students instruction in higher order skills, schools could employ well-designed and highly integrated computerized learning modules. These modules would ask students to distinguish between relevant and irrelevant information, construct plausible scenarios for action, predict their consequences, and refine their predictions. By simulating the complexity of an advanced information society, the modules would encourage students to become better at transferring learning from one context to another.

All students would benefit from these higher achievement standards because nearly all can achieve them. The proposals to individualize student learning plans, adopt cooperative and mastery learning strategies, and institute team teaching are designed to insure that no group of students would be left behind. The value of individualized planning and mastery learning in meeting these goals became apparent in the 1960's. Until now, however, attempts to implement them have been difficult for some schools. At the school level, keeping track of thousands of student learning objectives, hundreds of learning activities, and grouping and re-grouping students have presented significant management hurdles. With the technological capability to manage instruction at teacher work stations in hand, schools can now envision the successful implementation of modern instructional strategies in a wide variety of daily situations.

Individual schools would have different needs for technological instructional and management services. Schools implementing mastery learning at several grade levels would draw heavily on technology services in instructional management for monitoring student progress and for on-line mastery testing. Technology services could also be chosen to augment the strengths and offset the weaknesses of the school's teaching staff. Distance learning services could support subjects where no qualified teacher is available. Some schools would use dedicated Local Area Networks for instruction in content areas where the staff is weak, while the same resources might be used in different schools for correctives or enrichment. Some schools would emphasize highly individualized interactive instruction. Many would use technology services to make staff development more productive and less time consuming.

As individualized planning and increased teacher contact with students proceeds, automated school and classroom management would permit an expansion of the role of the Teacher and Lead Teacher so that they (with the assistance of Assistant Teachers) could be responsible for larger groups of students (see Recommendations 3C and 5A for a discussion of the different roles of teachers). The schools would be able to employ effectively a higher overall student-to-teacher ratio than is now possible (although this report recommends a much reduced adult-to-student ratio including Assistant Teachers).

The following section elaborates on our recommendations to enable the public school system to realize the benefits of technology outlined above. The recommendations are based on a new vision for technology use in schools. The principles guiding this vision are:

- Decisions about technology use should be made at the lowest organizational level possible: the school, the mini-school, and the teacher. The school should be held accountable for using technology productively and have the resources and authority to plan for and use technology appropriate to their local needs.
- The state should help guide the development of the full use of technology and stimulate both the supply of and the demand for technological services.
- School-based demand would be the primary incentive for the development of new products and services.
- Districts would become cost-centers and providers of services to schools. They would compete with other providers: institutions of higher education, professional associations, user's groups, businesses, and regional or county service centers to support school technology use by selling services and conducting short term research, development, assessment, demonstration or training projects. These groups, along with schools, would be encouraged to form consortia.

B. Elaboration of Recommendation

1. **State Standards.** *The state would set statewide standards for the purchase and use of computer-based technology (including related communication protocols) that would enable schools to network efficiently, use long-distance learning technologies, and create computer-based learning environments.*

The purpose of this recommendation is to establish statewide standards for technology purchase and use in order to promote effective use and to stimulate market forces. In the absence of uniform standards, schools purchase a wide variety of equipment and software some of which is substandard. As a result, businesses lack the organized school market required to justify substantial (and much needed) research and development investments. Uniform standards would promote a statewide market, and give businesses incentives to invest in R&D. State standards could be general enough to allow schools latitude to choose among alternative technological approaches, thus further stimulating competition among suppliers.

To implement the above recommendation, this report proposes that the present or a reorganized and reconstituted Educational Technology Committee (ETC) be given the authority to oversee the development of common standards and specifications for all required school reports and student records, and for voice, video, and data communication between all educational agencies.

In addition to establishing a process for determining reporting standards, the Educational Technology Committee would convene a panel of experts to develop a set of information transmission protocols that anticipate using a variety of voice, video, and data transmission between schools, districts, and the state. Protocols would be developed for one-way transmission as well as two-way transmission and would apply to local wide area networks as well as more distant networks.[8] In defining its recommendations, the panel would avoid setting technical specifications that preclude hardware or software commonly found in schools. Instead, it would set outcome specifications, only defining the process or system architecture as necessary for sharing information between dissimilar systems.

The legislature would authorize the State Board of Education to expand its regular review and adoption of textbooks to include technology-based instructional modules. State-adopted modules would cover portions of the core curriculum in the areas of math, science, language arts, and history and social science. By adopting technology-based materials, the state would clarify its expectations of instructional software developers and establish standards of educational sophistication, student interaction, and media use that schools and parents could demand in their software purchases. Schools and parents would have the ability to review and explore the technology-based curriculum modules under consideration any of the 30 established textbook review sites throughout the state. The standards implied by the adoption of modules could be updated regularly with each new adoption cycle (currently every 7 years).

2. **Required School Planning and Direct Funding.** *Schools would be required to submit a technology use plan (TUP) as part of their school development plan. Schools would be funded directly so that they could acquire technology services and equipment suited to their local needs (but compatible with statewide standards).*

This recommendation calls for schools to be funded directly each year for the acquisition of technology services and equipment. We propose that, on a phased-in schedule, every school would receive a yearly allocation of direct funding that could be used to lease or purchase hardware, software, technology training, maintenance, or other technology services from suppliers or service consolidators. For example, the costing analysis used for this report assumed that schools would receive $25 per student per year in addition to a $5000 per year funding floor. The $5000 per year floor would help to insure that small and isolated schools have funds sufficient to meet the needs of reform.

Under this assumption, a medium sized school of 250 students would receive $17,500 per year to purchase or lease technology services. Over the ten year period of the reform the same school would have received $125,000. Using lease-purchase agreements and by acquiring services instead of building hardware inventories, this school could be equipped with an instructional network of computers for 15-20 students at about $40,000, ten teacher work stations at $5,000 each, a central office work station at about twice that amount and a yearly instructional television subscription. This would leave about $20,000 for school rewiring or specialized software not included in the lease of services.[9]

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[8] Watson, Calvert, and Collins (1987) make a persuasive case for a set of "local wide area networks", preferably housed in universities throughout the state, that can serve the valuable function of linking regional information sources like libraries, social and health service databases, cable systems and government computer centers with distant national and international resources so that they can be searched in an organized fashion and are hierarchically available to teachers and students from school- or home-based work stations. However, neither universities nor other private or public suppliers would be likely to provide such a service direct to schools without some assurances that the schools within a reasonable distance -- say 30 miles -- have similar sets of transmission protocols and standards for the use of databases and other information sources.

Alternatively, the same school could provide productivity tools for the school's media center, and rewire the entire school so that every teacher was linked to the central office and a number of databases and networks throughout the nation. The possibilities are endless.

Direct-to-school funding would dramatically increase the resources that can be used for technology without overburdening the school finance system. This funding level is significantly less than that for the School Improvement Program in 1986.[10] Direct funding would achieve the greatest leverage in restructured schools where the authority to allocate educational resources is firmly established with the school's Coordinating Council (see Recommendation 3B). By funding such schools directly, the state would eliminate the overhead expenses associated with channeling money through districts or regional centers. (See below for a detailed discussion of the role of districts as providers of technology services).

Schools would receive direct technology funding as part of a larger discretionary budget that includes funding for staff development, instructional materials, and other activities. Once received, this money could be spent to meet the overall objectives of the school's instructional plan without regard to rigid categorical definitions. For instance, one school might determine that its greatest short-term technology need is in training for instructional use. In this case, the school could combine some or all of its technology funding with staff development money to purchase technology training. Another school might focus on the acquisition of Computer Assisted Instructional software as its primary short-term objective. It might therefore combine instructional materials money with technology money and staff development money for software purchases that include vendor-supplied staff training.

The integration of Technology Use Plans (TUPs) into the ongoing instructional planning at each school would encourage and facilitate the natural development of school-based resource planning. This report recommends that schools would be required to create Technology Use Plans as the sole prerequisite to receiving technology funding. Initially, School Coordinating Councils would develop a 5-year plan for the use of technology in their school, grounding these plans in the instructional needs of their students and the talents of their staff. Technology Use Plans would contain both short- and long-term scenarios for using technology to support the school's instructional and management objectives, and would support the goals of the school's overall development plans. After the initial Technology Use Plans were developed, successive updates and revisions would become a part of the ongoing school development planning cycle. To assure accountability, the Parent-Community Governing Body (see Recommendation 3B) would review the Technology Use Plan before submission to the district and one or more Institutes for School Development (see Recommendation 4A and discussion below). The district would provide feedback on the plan and would certify that the plan meets legal and fiscal requirements before the school could receive its technology allotment.

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[9] These figures are averages of the estimated costs solicited from the three major educational computer suppliers: IBM, Apple and Tandy-Radioshack as well as from KQED and KOCE Educational Television stations in February, 1988.

[10] School Improvement Program funding provides discretionary money to schools to develop and implement an educational improvement plan. About 70 percent of California's school children indirectly benefit from this direct-to-school funding program that cost $224,865,000 in 1986. The above technology proposal would cost about $158,800,000 per year if all schools were funded. Recommendation 3A proposes the redirection of SIP funding to the more general School Discretionary Budget. Technology funding also would be part of this discretionary budget.

The Technology Use Plan also would be sent to one or more Institutes for School Development (see Recommendation 4A) for comment, but not for approval. This requirement is intended to insure that schools receive expert advice from other practitioners and institutions of higher education (where they are involved with the Institutes).

The combination of direct-to-school funding and school planning would put real authority into the hands of those who are logically accountable for the resulting outcomes: school management teams and classroom teachers. As a part of the accountability process, each Technology Use Plan would require approval by the school's Parent-Community Governing Body before it could be considered as the basis for funding. In its role as a school's management body, the School Coordinating Council would be held accountable for meeting the technology plan's objectives and for providing outcome measures to parents and to the state. Outcome measures would be reported as a part of the yearly School Performance Report (see Recommendation 2B). Schools that fail to meet their students' needs for technology use or that use technology funding unproductively would be identified by their poor Performance Reports.

3. **Local Autonomy**. *Schools could purchase equipment and services from districts, Institutes, or private providers of their choice.*

This proposal recommends that schools be given the authority to lease or purchase their software, hardware, and technology services from a full range of private and public suppliers. This approach would alter the market governing the supply of services to schools. The schools and their students would be the clients, rather than just the consumers.

Districts, counties, and regional educational agencies would compete with private providers, colleges, and other state agencies for the school-based technology market. They would become cost-centers in the area of technology services, only providing those technology services they can sell to schools (see Carnegie Forum on Education and the Economy, 1986, for a similar proposal). The efficiency and quality of educational technology services would benefit from this competition as would the range and variety of services available.

By permitting schools to lease equipment and software, the state would provide another mechanism that would encourage the development of technology services tailored to the educational market. School leases could be written to exclude financial liability for payment if yearly funding were precipitously cancelled. This would avoid the problem of committing future funds under a state structure that funds yearly, while at the same time permitting schools to acquire complete packages of technology services immediately. Students and teachers could receive the benefits of technologically-induced productivity immediately rather than having to wait years, and the concern over schools acquiring obsolescent hardware would be greatly reduced.

Since schools could purchase services from providers other than districts, it is likely that schools with common interests might form consortia. The discussion below proposes that the state provide incentives to stimulate this development. Consortia create an aggregate demand for technological service based on school needs, rather than on geographic proximity. Currently, aggregate demand for technology services has been primarily defined geographically; schools in close proximity to one another have been serviced by a district, county, or regional public agency. This practice overlooks the enormous differences between schools in a single geographic area. Even elementary schools that are next door to one another may have very different technology needs because their student's needs are dramatically different. These differences would be even more apparent after schools have been restructured: they would be more likely to emphasize different subjects (as Magnet Schools do now), to employ different teaching strategies, or serve students with unique needs. On the other hand, schools that emphasize the same subjects, employ similar teaching strategies, or serve similar populations would likely have some similar technology needs despite hundreds of miles of distance between them. By freeing schools to enter into school (rather than district) consortia, a more efficient delivery of services would be possible.

4. **Institutes and On-Going Training.** *The Institutes for School Development would provide on-going training of teachers and administrators in the purchase and use of technology on a subsidized fee-for-service basis.*

The idea of schools having autonomy to purchase technology services, including staff development, is one aspect of the Institute approach to providing school development training and other services (see Recommendation 4A). Rather than the approach of the Teacher Education and Computing Centers (TECCs), which ultimately became part of a centralized mechanism, the Institutes would be independent of the State Department of Education and partially operate on a fee-for-service basis. Some Institutes would be designated to focus on technology, and such Institutes would probably consist of consortia of schools and institutions of higher education.

The example set by the Southeast Kansas Education Service Center demonstrates the potential effectiveness of the cost-center approach. In 1976, a group of superintendents from a poor and depressed area of Kansas won a small Vocational Education grant from the federal government and decided to leverage it to provide low-cost media services for schools in the surrounding area on a fee-for-service basis. Initially, they offered three services: 16mm projector repair service at about half the usual cost, subscriptions to a 160-title 16mm film library for $4 per student, and the opportunity to bulk purchase duplicating paper for a two percent surcharge. Within three years, the Southeast Kansas Service Center was entrepreneurial enough to pay its own way and had begun to expand beyond its original services.

In 1988, the Southeast Kansas Education Service Center offers 111 distinct services, with a $10 million per year program and receives no state or federal funding. Current services include providing highly trained special education teachers to schools with small populations of special education students on a contract basis; offering staff development programs on a fee-per-course basis to teachers and schools; group purchase of technology and other services for a one to two percent surcharge; and expanded maintenance and repair services. They also broker special services like school asbestos inspection services. The overhead at the Kansas Center averages about 3 percent of the $10 million in service income they generate yearly, with group and bulk services remaining at the original overhead of rate of one to two percent. Four dollars per student still pays for a school's subscription to the film library that now contains 300 films and 4000 tapes. Cost-effectiveness is enhanced by the fact that the Southeast Kansas Education Service Center is a not-for-profit agency. However, their substantial building fund testifies to the profit potential to be found in offering technology services that meet school needs.

Because the Southeast Kansas Service Center begins each year with a zero budget, they rely on repeat business from schools and districts. Their customer orientation keeps the quality of service high. They also sponsor a Superintendent's Forum to insure that new needs do not go unmet. The Forum has become a regular meeting ground for administrators to assess their needs and evaluate the services they receive. Many districts in California have developed significant technology expertise that could be translated into fee-for-service products sold to schools along the lines of the Kansas model.

All technology service suppliers, both private and public, would be encouraged to develop service packages that include training, maintenance, and updates along with hardware and software. The technology service approach redirects the attention of educators away from hardware capabilities and back to the educational outcomes desired. Service packages are routinely tailored to the outcome requirements of business, but schools have rarely had the funding and authority to demand them.

The history of the Minnesota Educational Computing Consortium, (MECC), in delivering service to California encourages the development of the service package approach. The Minnesota Consortium's educational software has been delivered in California through a series of contract licensees (usually districts) who are given the right to duplicate and resell the software to schools. When training and other supporting services have been provided by the licensee, subscribing schools have been much better satisfied and Minnesota Educational Computing Consortium has had fewer customer complaints. This is so much the case that they are in the process of rewriting their license agreements to require service clauses.

5. **State Incentives.** *The state would establish a new competitive grants program that would (a) reward uses of technology that increased teacher productivity and school efficiency; (b) provide matching funds for the formation of consortia of schools for the purchase of technology services; and (c) offer long-term R&D funding for the development and demonstration of computer-based curricula.*

This recommendation proposes that the state augment direct-to-school technology funding with an Incentive Grant Program. The new grant program would eventually replace all existing grant funding available for technology use in schools. Each type of grant funding discussed below is designed to enable the state to guide the demand created by direct-to-school technology funding.

Consortium Grants. Consortium grants would provide for a ten percent match of the total technology funds committed by any group of five or more schools for the lease or purchase of collective services. To be eligible for a Consortium Grant, schools would agree to a plan for managing their resources and coordinating their needs so that cost-effectiveness is achieved at each participating school. Consortium grants would also be available to institutions of higher education, businesses, districts, and other providers who successfully developed and marketed consortium services to schools. The state's ten percent match would help to defray the costs of developing and managing a Consortium for up to three years before it became self sufficient.

A technology service consortium might include every school in the state if the service provider offered something of value to all schools. For instance, a consortium that delivered telecommunications services to all educational agencies and schools might charge a hypothetical yearly subscription fee of $5,000 per school to be paid from each school's discretionary budget. The consortium would then have $36.8 million in yearly operating capital to which a Consortium Grant would add $3.7 million of state funds for each of three start-up years.[11] This scheme might permit schools to acquire telecommunications services at much less cost than would be required to build a statewide network from scratch.

At the other end of the spectrum, a few schools with unique needs might choose to collectively purchase specific course-ware through a consortium that would be eligible to receive up to three years of 10 percent matching funds from the state for coordinating their purchases and insuring the ongoing delivery of consortium services.

Productivity Grants. Productivity grants would offer short-term loans to schools that can demonstrate they would save an equal amount within two years (or less) through an increase in productivity gained by technology use. Increased productivity might be defined by one of two specific outcomes: fewer teachers would be required to achieve the same learning level for the affected students; or the students would achieve a higher level of outcomes.

The state's Productivity Grant fund might begin with a substantial balance of $50 million, but would be expected to produce several times that amount in system-wide savings during the reform period. Utah's pioneering experience with productivity grants provides an even more ambitious precedent. With an initial investment of a few million dollars in productivity grants, Utah has been able to save, and will ultimately reallocate, $400 million in funds that had been set aside for new school construction over a period of five and one-half years. This was accomplished by providing grant funding for schools to redesign their staffing patterns in ways that met the definition of productivity above. Teachers and principals came up with so many productive versions of year-round schooling and flexible staffing that Utah will be able to reallocate its entire construction budget.

Productivity grants began in Utah when Senator Warren Pugh, also a successful businessman, determined that Utah's educational system needed an investment in productive strategies much as any stagnant business. The legislature authorized the State Department of Education to award planning grants and schools were set free to restructure their operations in ways that made sense. The results so far have been dramatic: in addition to saved construction costs, teachers have designed ways to improve productivity by increasing their work hours, decreasing the numbers of teachers working in a school, providing bonuses for student performance and offering days for teacher preparation.

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[11] The Southeast Kansas Education Service Center experience indicates that a small amount of seed money is sometimes necessary for the first 2-3 years before a cost-center can be expected to break-even on service delivery.

More recently instituted, technology productivity grants have permitted Utah's teachers to increase class size by as many as six students while raising the effectiveness of their teaching, to deliver basic math facts simultaneously to large groups of students freeing three or four teachers to prepare individualized follow-up lessons, and increase the productive use of office staff time by decreasing the time it takes to prepare a single report from one day to fifteen minutes.[12]

Under our recommendation for California's technology productivity grant program, schools would be required to generate short-term savings equal to the amount of the initial state loan, and they would continue to generate that savings indefinitely. Initially, the money saved through increased school productivity would be reallocated to technology by replenishing the Productivity grant balance. Further savings would be reallocated to support direct-to-school funding for the purchase of technology services.

Institute Grants. This report recommends that a separate grant program be established for Institutes for School Development that emphasizes instructional technology. These grants would enable the institutes to conduct research on the relationships between learning, human development, and technologically-mediated education. Postsecondary institutions, businesses and schools would be encouraged to develop partnerships to bid for these five-year grants. One possibility might be that, after a competitive selection process, each of four Institutes would receive $500,000 of state funding per year to be augmented by a twenty-five percent match by the applicant partners. Institutes might be funded to conduct their research during the 2nd through 6th years of the reform.

State support for Institutes would not constitute the resurrection of regional service centers that have a monopoly on technology services to schools. California's experience with the recently defunded Teacher Education and Computing Centers demonstrates that non-competitive and unaccountable service centers produce highly variable results. The Teacher Education and Computing Centers were initially funded to develop expertise in computing and to provide teacher training in that area. The largely self-taught experts at the Centers did not have classroom responsibilities and eventually became less effective as school change agents. They also were inherently limited in the information they could possess. Schools who called on them for answers to technology problems usually got answers, but the quality of those answers was highly variable and there was no mechanism for holding Teacher Education and Computing Centers accountable for the results their advice produced. Although a research and development function was implied by their funding, the Centers typically lacked the necessary skills and resources for this mission. Completely dependent on funding from the state, they also added millions of dollars to the costs of school technology transfer without being accountable for increases in productivity or effectiveness.[13]

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[12] The above comments are based on conversation with Dr. Garbett, Director of State Planning and New Development at the Utah State Department of Education, March 1988.

[13] In 1986, Teacher Education Computing Centers were directly funded for $12.5 million dollars and received some additional money from Educational Technology funds and direct school and district reimbursements. In July of 1987 they were struck from the budget by the Governor.

The Institute Grants would provide an alternative mechanism for developing regional research, training, and service centers from the bottom-up. Their research functions would be supported by grants; training functions that result from research could be supported either on a fee-for-service basis, or through competitively won Institute for School Development funding; and consortium matching grants could provide the seed money that enable them to become established as service centers. Schools would purchase these services directly and the Institutes would be held accountable as cost-centers.

Co-Development Grants. Co-development Grants would encourage businesses and schools to cooperate in the development of software and systems for promising educational applications. Co-development Grants would only be available to businesses and schools for the purpose of developing instructional products identified as valuable by Institute research, Productivity Grant experiments, etc. Funding would begin, therefore, during the fifth year of reform. Through a competitive bid process, the state would provide two years of funding to each successful grantee and would require a 50 percent match. Products developed under the support of a Co-development Grant would be available at a discount to California schools and would be sold nationally or internationally by the developers.

Technology Use Dissemination Grants. This report recommends that another grant category be considered, the Dissemination Grant. Dissemination Grants would be available to schools, districts or consortia that chose to adopt innovative or highly productive strategies previously demonstrated through Productivity grant funding or research currently being conducted in schools. Funding would be the result of a competitive process that included strict evaluation and pilot test requirements. Dissemination Grants, like Co-Development Grants, would be limited to two years of funding, and any resulting products or services could be sold to schools or consortium throughout California.

Technology Sabbaticals. The final grant category proposed here is for teacher or administrator sabbaticals for increased study of technology. Technology sabbaticals would reward educators and encourage them to develop their knowledge of educational technology. The state, schools and the information technology industry would cooperate to provide teachers and administrators with half-year paid sabbaticals outside the educational system in positions (for example, at Institutes) where they could renew their commitment to innovation in education and return to their teaching and supervising roles with greater understanding of technology's role in improving schools.

Information technology businesses might host Sabbatical Teachers by offering them short-term employment as educational consultants, product developers, quality control experts, or other contributors to their educational product development units. Host businesses, the state and the teacher's school might cooperate to fund sabbaticals, with the state and the host business sharing the cost of the Sabbatical Teacher's salary, and the school, district, or host business cooperating to defray the costs of substitutes.

The experiences of the Social Studies Clearinghouse and the National Council for Social Studies in the late 1960s and early 1970s provide the earliest positive model for this incentive program. These Social Studies sabbaticals were a successful and popular program that was only discontinued because there were so few teachers -- even nationwide -- who had the opportunity to take a sabbatical leave.

More recently, at least ten states have adopted employer-sponsored sabbatical programs for teachers with successful results. An important key to their success has been state-level collaboration and at least partial state funding. Just as important is the active role sponsoring businesses take in supporting teachers during their sabbatical period. The third key to success is school commitment to improving their educational programs. The technology sabbatical program described above is designed to insure the commitment of each of these stakeholders.

4C: PROMOTE ADOPTION OF FLEXIBLE EDUCATIONAL PROGRAMS

The state in cooperation with businesses should promote the adoption of year-round schooling, flexible course scheduling, and alternative class sizes by using a combination of incentives, deregulation, and training.

1. **Year-Round Schooling.** Government and business would join in a concerted effort to establish year-round schools as the norm throughout California. The state would broaden the scope of current incentives for schools to develop year-round calendars, and require districts to place all newly built facilities on year-round schedules, unless a waiver were granted by the Superintendent of Public Instruction.

2. **Flexible Schedules and Facility Use.** The state would encourage schools to reorganize school time by eliminating course unit requirements for graduation; eliminating standards for the minimum length of school days; and providing incentive grants for schools to experiment with flexible scheduling.

3. **Facilities.** The state would encourage the use of alternative classroom spaces (e.g., larger lecture halls and smaller seminar rooms) by enabling schools to rent or lease public and private buildings, and specifying that new buildings provide alternative classroom sizes and spaces.

A. The Need

Year-Round Schooling

Current estimates indicate that by 1990, almost 30,000 new classrooms will be needed to accommodate the 142,000 children entering California schools each year. (Assembly Office of Research, 1986). To keep pace with the need for new classrooms, the State Department of Education estimates that if current enrollment trends continue, California faces the prospect of falling between three and five billion dollars short of meeting the demand for classroom construction by 1990 (California State Department of Education, Year-Round Education, Year-Round Opportunity, 1987).

One alternative to alleviate the growing demand for school classrooms is to use existing school facilities more efficiently through encouraging more widespread use of year-round schools. Ninety five percent of California's classrooms sit empty 185 days of the year (National Council on Year-Round Education, 1986). On the topic of a similar situation in his state, Governor Lamar Alexander of Tennessee writes: "Tennessee has $4 billion worth of school buildings that are used for teaching students 180 days... Most of the other 185 days they sit empty and silent.... Tennesseeans are not rich enough to waste money at that rate... Nor are Tennesseeans well enough educated to keep schools closed half a year."[14]

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[14] Excerpt from an address by the Governor, 1984.

Although 71 percent of all year-round schools are located in California, these schools enroll only about five percent of the state's students (251,000 students in 277 schools in 90 of the state's more than 1,000 districts). The state has a great deal of room to increase the number of schools implementing year-round education.

What is Year-Round Education?

Year-round education is a reorganization of the traditional 180 day instructional year. Year-round calendars assume various forms. They all allow for schools to divide the instructional calendar into several sessions so that the school capacity can be increased by keeping the building open eleven months and rotating students throughout the year (Ballinger, 1987). Year-round calendars can either be single or multi-track[15]. A single track calendar could be adopted by a school not facing a need to accommodate more pupils; the entire school would follow the same calendar with the same vacation periods. With multi-track calendars, students are on differing schedules. The most widely implemented calendars are:

- **45:15:** The school year is divided into four nine-week instructional blocks with three-week intersessions. Four separate groups of students could be accommodated; three groups in session at any given time.
- **60:20:** The year is divided into four twelve-week instructional blocks with four-week intersessions. Students would attend three of the four blocks and four separate groups of students could be accommodated.
- **Concept 6:** The calendar is divided into six 40-44 day learning blocks with two 40-44 day intersessions. Students attend four of the six learning blocks and can attend intersessions.

Under each of these plans, students are assigned or students and their parents may select instructional blocks (though the school must adjust the choices to assure that students are divided evenly across groups).

The two principal reasons for implementing a year-round calendar are:

1) Year-round education maximizes use of school facilities, thereby minimizing the amount of school construction necessary to meet growing enrollments; and
2) Year-round education expands educational opportunities for students by offering a choice of schedule and possibilities for extended instruction.[16]

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[15] Track here refers to the instructional block of time and should not be confused with ability grouping or tracking. Students are not assigned to an instructional track on the basis of either their ability or their career aspirations.

[16] Many school districts experience what the Governor's Commission on Education defines as "Baby-Boomlets" -- extreme fluctuations in enrollments in short time spans. In these situations, it does not make sense to construct a new facility only to have to close it again when the boomlet is over.

Year-Round Education Maximizes Facility Use

Successful implementation of a multi-track year-round calendar can yield a 20 to 33 percent increase in student capacity per school, deferring or eliminating the need for new school facilities.[17] Researchers have estimated that successfully implemented year-round schools have the potential to reduce annual school budgets by six to eight percent and a carefully constructed calendar can produce an annual budgets savings of up to 12 to 15 percent (Baker, Pelavin and Burnett, 1978; Utah State Board of Education, 1980).

The Assembly Office of Research (1986) estimates that California could save approximately $2 billion dollars in capital costs over the next 13 years if multi-track, year-round calendars were adopted to accommodate projected enrollment growth.[18] Los Angeles Unified School District estimates that adopting a year-round calendar district-wide would increase capacity by 134,000 seats -- the equivalent of building 103 schools at a cost of $1.9 billion (Savage, 1985).

A cost analysis for the Pajaro Unified School District in 1976 found a 4 to 5 percent reduction in the annual district budget attributable to the adoption of year-round calendar. In the district, capital savings projected over a twenty year period totaled $2.8 million (Burnett, 1979). The Oxnard Unified School District estimates that the district saved $908,061 in the 1984-85 school year through operation of year-round calendars in eleven of its fourteen elementary schools (Oxnard Unified School District, 1986).[19]

Year-Round Education Improves Educational Outcomes

In addition to the fiscal benefits accruing to schools adopting year-round calendars, year-round schooling is educationally sound. The traditional nine month school calendar was developed in response to the needs of an agrarian society, not for academic reasons. In fact, shorter vacations reduce the amount of learning that is lost when students are out of school for three months.

Although traditionally school ends in June, student learning does not. Year-round schools respond more effectively to all children's needs by offering instruction throughout the year and by dividing the traditional school summer vacation into short, staggered breaks. Several studies have documented that most students do not increase their achievement levels over the summer. Indeed, low income students may actually be harmed by loss of summer instructional opportunities (Utah State Board of Education, 1980; Pelavin and David, 1978; New York Board of Regents, 1978, as cited in Ballinger, 1987). In addition, principals and teachers in year-round schools, report that shorter breaks are particularly helpful to children whose primary language is not English. These observations suggest that all students stand to benefit from year-round education.

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[17] When off-campus occupational training courses are included, schools have been able to increase capacity beyond this range (Merino, 1983). Therefore, schools which capitalize on the experiential learning potential of the student elective and specialized education components of our proposal could experience additional capacity increases.

[18] Even the most critical analyses of year round cost savings have found that as long as the space saving potential of year round schools is realized, "there is no doubt that capital costs decline." Furthermore, although operating costs will usually increase with the adoption of a year round calendar, operating cost increases do not come close to offsetting capital savings (Baker, Pelavin, and Burnett, 1978).

[19] As Baker, Pelavin, and Burnett (1978) point out, there are obvious limitations in comparing the costs of traditional calendars to year round calendars and attributing cost savings to the adoption of a year round calendar is a bit tenuous. However, these researchers point out that studies which compare the budget of year round schools with a simulation of what it would cost to deliver the same educational program under the traditional calendar have proven helpful. The cost analyses described here have employed that method.

A national survey of year-round schools found that 92 out of 164 programs had made extensive or complete changes in their curricula with schools reporting positive curriculum and instructional changes. For example, under the year-round Orchard Plan model, teachers tend to adopt an individualized approach to teaching to accommodate the varying classroom population.[20]

Year-Round Education Provides Enrichment Opportunities

In some schools, students and parents take advantage of additional instructional opportunities offered during intersession, allowing additional instructional time over and above the 180 days. Jefferson County Schools (1977) reported that up to 50 percent of their students enrolled in supplemental courses offered during the intersession and 20 percent of students attended a fifth (optional) term (Steinbrecher, 1988; White, 1986). Often schools do not have the teacher or financial resources to accommodate the number of students interested in attending intersession courses or optional terms.

Under year-round education, schools can use the intersession period to focus on intensive work for students who have been underachieving. They also can offer a variety of enrichment and individualized instruction, for example:

- **Mini Courses:** Involving community or business volunteers and school staff in providing short courses in language, applied skill development, oral history projects, driver education, etc.
- **Sports, Physical Education, or Recreational Programs:** Involving local recreation departments and community volunteers in providing in-depth instruction in sports and recreation activities.
- **Art and Science Programs:** Involving local museums, community volunteers, and personnel from local colleges to allow students to learn from the resources in the community and take on larger projects than are possible during the regular school year.
- **Career Information:** Involving parents and local business and professional people in providing students with career information and possible paths for approaching different careers.
- **Internship and Volunteer Opportunities:** Students would be able to choose from a variety of volunteer and internship possibilities in the community including opportunities for tutoring within the schools.

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[20] Under the Orchard Plan, a teacher is assigned 20 - 25 percent more students than would normally be the case and 20 - 25 percent of the students assigned are out on intersession at any given time.

- **School-Based Enrichment:** Students could take on enrichment activities as independent study and consult with school staff as they progress. Field trips could be scheduled during the intersession period to allow for minimum disruption of instructional days. Students who have not mastered a particular aspect of the curriculum could use the intersession to work with staff members or with tutors on that material.[21]

Other Benefits of Year-Round Education

The following additional benefits of year-round schooling would contribute to a more smoothly functioning education system:

- **Easier Primary Unit Transition:** Facilitates an easier transition from primary school to second grade. Year-round schools would allow students to enter second grade at a time when they are at the appropriate point in their development rather than just in September.
- **Reduced Vandalism:** Districts report that vandalism is reduced significantly in schools that develop year-round calendars (Honig, 1985). For example, Oxnard Unified School District reportedly reduced its 1975-76 vandalism expenses from $82,540 to $10,000 in 1984-85. (Year-round schools have been operating in the district since 1976.)
- **Teacher Stress Reduced:** Breaks distributed over the year have reduced teacher burnout. Surveys of teachers in the state indicate that teachers originally skeptical of year-round education are satisfied with the change.
- **Enhanced Parental Choice:** Year-round schools where individual schools select the calendar allow parents the flexibility of choose which sessions their children will attend.

Current Incentive Programs Could be More Effective

The state has established two separate year-round incentive programs directed toward districts experiencing overcrowding. School districts which have approved applications for state building construction funds, are eligible to receive between $25 and $150 per pupil enrolled in a year-round school.[22] Currently, however, only twelve California districts with one or more year-round schools are receiving year-round incentive money despite the fact that a recent SDE survey indicated that as many as one-half of the 42 school districts with year-round schools (in 1986) indicated that they were eligible to receive such funds (State Department of Education, 1987).

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[21] Intersession instruction would enable students to supplement their learning without being pulled out of their regular classes as is now the case with some compensatory education programs. Offering enrichment and special help during the intersession would prevent disruption of the learning process.

There is evidence to suggest that the current year-round incentives could be significantly improved. For example, the State Allocation Board must certify that a district has filed an approved application prior to payment. Unfortunately, the waiting time for state approval is currently estimated at up to three years (State Department of Education, 1987). This lag time may serve as a powerful disincentive to districts considering year-round education. By the time their application is approved (i.e., the district has met student to teacher ratio criteria and demonstrated the need for increased construction based on enrollment and capacity), the district's motivation for considering year-round in lieu of state construction funding may have eroded.

California's recently enacted "Year-Round Demonstration Project" (The Orchard Plan) represents a positive step. Effective Spring, 1989, the state will establish special funding for five elementary schools selected by the State Department of Education. Schools will adopt a year long school calendar within the following parameters: permanent teachers will be on eleven month contracts; districts and schools eligible for compensatory funding will provide a minimum of fifty hours of intersession class time; and school districts will agree to operate on year-round calendars for at least five years.

Time Could be Used More Efficiently

At the elementary school level, teachers have a great deal more control over how to organize the six hours that they have with students than do teachers at the junior high and high school levels, where the class time of 50 or 55 minute units is not all devoted to instruction. Attendance is taken in each class; if the process of checking the entire class takes four minutes per class for each student's six classes, almost half an hour of every student's day is spent listening to roll taking. In addition, high school students spend as many as six minutes five or six times per day passing between classes. The daily expenditure is between 25 and 36 minutes. Between attendance checks and passing periods, students spend approximately an hour per day in built-in unproductive activities -- the equivalent of 180 hours per year. Goodlad's (1984) data support this argument. They show that only 70 percent of the time students spend in the classroom is devoted to instruction with the other time used for routines (like taking attendance), behavior control, and social activity.

If schools were to organize time in a more efficient way, the amount of wasted time could be greatly reduced. A class that meets five times a week for 55 minutes could instead meet for two hours twice a week. The start-up and wind-down time would be reduced and an equal amount of instruction could be fit in a shorter amount of time. It makes pedagogical sense, for example, for a Physics lab or a painting class to meet for a longer time less frequently. An argument could also be made for providing more time at a stretch for students learning to master a complicated math concept or working on a history project.

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[22] Effective in 1989, all districts applying for state construction funds or emergency portables will be required to submit a feasibility study with their application. Districts which implement multi-track, year round calendars will receive priority for state construction funds (AB 1650). Beginning July 1990, first priority will go to districts with ten percent of their enrollment in year round schools. The percentage will increase to 30 percent by July 1992. These districts will continue to qualify for year round incentive funding.

B. Explanation of Recommendation

The benefits of adopting year-round schooling and flexible scheduling are apparent. Moreover, there has been considerable experience with such approaches both in this country and abroad. Though such practices always will require planning to adapt them to local circumstances, year-round schooling and flexible scheduling are past the experimental stage. They have proven themselves and merit adoption by virtually all schools.

1. **Partnership for Change.** *Government and business would join in a concerted effort to establish year-round schools as the norm throughout California. Information about successful examples would be disseminated throughout California. Information about successful examples would be disseminated to parents, local community members, and teachers, and local plans and guidelines would be developed by businesses, community groups, and district school boards for a shift to a year-round calendar. SDE would develop additional booklets and guides for use at the local level.*

The main reason year-round schools are not widely used is one of attitudes and tradition. District school boards perceive that parents oppose year-round schools and more flexibility. They may be right, as the recent political struggles surrounding Los Angeles' efforts to adopt a year-round schedule dramatically testify. The Superintendent of Public Instruction, the Governor, and many members of the legislature want to see the dissemination of year-round calendars, but the public needs to be convinced.

The essence of our proposal is to give autonomy to schools and their Parent-Community Governing Bodies to decide on year-round schedules and other flexible ways to organize the school day. It would be up to local communities to take action. Parental, community and staff commitment to the principles of year-round education is crucial to the development and maintenance of successful year-round schools (White, 1985; Merino, 1983; Ballinger, 1987; Rifkin, 1973, State Department of Education, Year-Round Education, 1987).

This report proposes that segments of local communities, particularly businesses, join with public officials to promote these approaches and convince parents and community members that such action will lead to more effective and efficient schooling. In addition, we recommend that the State Department of Education facilitate these efforts by disseminating information about successful examples to parents, community members, and teachers.

2. **Incentives for Year-Round Schooling.** *The state should more vigorously promote flexible scheduling on a daily and year-round basis by broadening the scope of current year long incentives to all schools which develop year-round calendars, tightening exemptions to current law which enables some overcrowded schools from converting to a year-round status, and phasing out the state minimum school day standard.*

This report recommends that the scope of incentives be broadened for schools that shift to year-round schedules. Under this proposal, the state would expand and extend the current incentive programs for districts adopting year-round education. Schools implementing a multi track year-round calendar would be eligible to receive increased funding of $40 to $60 per pupil, per year for students enrolled in multi-track year-round programs,[23] depending on the districts' student to teacher ratio, proportion of unhoused students, and potential construction costs. The state would share construction savings with those schools that helped produce the savings.

The state would continue to tie school construction approval to adoption of year-round implementation by districts. No construction of permanent or temporary school buildings would be approved unless the requesting district has exhausted the possibilities of housing more students through the adoption of year-round schools. Loopholes in the current law allowing districts to claim hardship would be reexamined in light of the serious need for facilities in the coming decade.

The state would facilitate collaboration between schools and recreation departments, day care centers, and other community agencies to assure coordination of services. Districts would assure that programs offered by other agencies in the community are available not only during summer intersession but also are available during other periods when students are on intersession. Coordination with county and local recreation departments and community agencies like the Boys Club and the YWCA will be easier for local districts if some type of coordinated effort takes place at the state level. Schools also could collaborate with libraries, community agencies, recreation centers, museums, local universities, and community colleges to provide intersession courses on or off the school campus. Schools could develop exciting mini-courses for students during intersession using the resources and facilities of other public and private agencies and community-based organizations. The state would facilitate and encourage this process and would disseminate the best ideas throughout the state.

3. **Flexible Schedules.** *The state would encourage schools to reorganize school time by eliminating unit requirements for graduating students; eliminating minimum school day standards; and providing incentive grants for schools to experiment with flexible scheduling.*

Although the California Education Code makes few demands on school districts about the number and types of courses necessary and the amount of time necessary in those courses, districts have adopted extremely similar patterns of course requirements and seat time requirements and those patterns are similar to those adopted by most other districts across the country. Those district requirements are extremely limiting for schools. Schools should be allowed to experiment with flexible scheduling of classes and with varying the length of the school day.

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[23] Under current law, districts are eligible for incentives of up to $125 per pupil -- but current appropriations are not sufficient for all eligible districts to receive incentive funding.

The current model of school organization with its emphasis on Carnegie units, seat time, moving from one grade to another based on longevity, emphasis on lectures, competitive system for grading, tracking, and ability grouping is a holdover from an earlier time. The Carnegie unit and seat time requirements remain from the model of the high school as preparation for college where requirements for course completion were based on the amount of time students spent listening to lectures rather than on the amount of time it took to master an appropriate amount of material. In the years since these practices first began, educators have learned much about how students learn and how to make the learning process more effective.

Particularly at the high school level, schools organize instruction in inefficient ways that encourage teachers to rely on the lecture as a way of teaching and promote an emphasis on learning fragmented facts rather than a focus on higher order skills. Goodlad (1984) argues that the circumstances of schooling (by which he means the length of the period, the lecture method, and the size of the classroom) militate against the development of higher order skills. Teaching social science well, for example, Goodlad contends, requires multiple resources, different schedules, and materials not usually available in schools.

The standard schedule at the comprehensive high school is 50 to 55 minutes per day five days a week. It is implicitly assumed that this schedule is the right time configuration for learning all subjects. For some subjects, the 50 to 55 minute period might be just right, while for others, a more flexible arrangement would be more sensible. It is sensible, for example, that art classes are scheduled for a two-hour time block twice a week, but in most high schools, that type of scheduling, though possible, does not take place. Many teachers feel strongly that students would learn more if they could receive instruction in larger blocks of time, fewer times a week. Moreover, if a teacher's arsenal of instructional tools only includes the lecture, 55 minutes may be the right amount of time. For teachers with more interactive instructional strategies, the 50 to 55 minute period is too short. Teachers argue that they only have time to get an activity started in many cases by the end of the period.

Another barrier presented by the current structure of school organization is the fixed school day. Most students go to school at 8:30 am and are there until 3:00 pm. Again, the length of the day is fairly arbitrary. Classes later in the day may meet the needs of some students while offering the option to fit in more morning classes may be better for other students.

Schools should have the flexibility necessary to end these restricting practices. They serve no educational purpose, in fact, they hinder the educational process in some instances. The state should encourage schools to experiment with and adopt flexible schedules that meet their local needs. This report recommends that in the short run, the state should provide incentive grants to schools on a competitive basis to allow them to experiment with flexible scheduling. Over the course of the reform period, all schools should be given grants to help them implement flexible scheduling.

4. **Alternative Facilities.** *The state would encourage the development of alternative classroom spaces, larger lecture halls, and smaller seminar rooms by passing legislation enabling schools to rent or lease public and private buildings, and specifying alternative classroom size and spaces in new buildings*

At both the elementary and secondary levels, classes are organized with one teacher per classroom of approximately 30 children. At the secondary level, it is a different 30 children each period. There is no magic in 30. There are times, when the teacher is lecturing for example, that the size of the group could be much larger than 30, while at other times, when an individual student needs extra attention, 30 is an unmanageable number of students.

The size of classrooms also represents a constraint, especially in high school. For some activities, 30 students in a room might be the right configuration, but many teaching techniques could be more efficiently carried out in a variation on the 30-student classroom. Some topics, for example, may work best with a combination of a large lecture (up to 100 or 200 students) followed by a series of small ten- to twenty-student discussion groups and even smaller groups working on differing assignments. Current schools do not accommodate these varying space needs very well. Most classrooms are not conducive to larger groups of students and often the furniture is not flexible enough to accommodate several smaller working groups.

This report proposes allowing schools to rent or lease space in their local community to use in flexible ways. Public or private space could be leased to allow schools the possibility of varying their space use. The School Coordinating Council should devise a yearly plan for space use and access to the alternative spaces should be available to all school faculty. The State Department of Education would encourage flexible space in all new school construction.

RECOMMENDATION 5

STRENGTHEN THE TEACHING PROFESSION

Teachers must be. . . . people who can communicate what they know to others, stimulate students to strive toward the same levels of accomplishment, and create environments in which young people not only get a taste for learning but build a base upon which they will continue to learn and apply what they know to the lives they go on to lead.

A Nation Prepared: Teachers for the 21st Century

Much has been written nationally and in California about the need to strengthen the teaching profession. The following are some issues raised in numerous reports cited throughout this section:

- **Salaries and Working Conditions Cause Many Teachers to Leave the Profession**. Teacher salaries are rigidly determined, and are too low especially for outstanding teachers with options outside of teaching. Teachers in many schools do not participate in decisions that affect them and the educational program.
- **Teacher Preparation Programs Inadequate**. Many teacher preparation programs do not adequately train teachers in new instructional techniques and the use of modern technologies.
- **Standards for Teaching Credentials Low**. Teaching credentials are easy to obtain, and are based on courses taken rather than measures of knowledge, skill, and ability to teach.
- **Teacher Evaluation Inadequate, Tenure Almost Automatic, Staff Development Uneven**. Rigorous evaluation of teacher performance is seldom done, and advancement to tenure occurs quickly and routinely. Post-tenure evaluation is not linked to staff development.

To have an outstanding education system in the 21st Century, these problems must be solved. A high quality teaching force and public respect for teachers is essential.

Many proposals in this report are intended to empower teachers and create working conditions that will enable them to help all children reach their full potential:

- **Recommendation 1** proposes to focus schooling on teaching core competencies would enable schools to drop superficial course that are imposition on and an embarrassment to teachers.

- **Recommendation 2** calls for incentives and planning to develop mini-schools would make it possible for teachers to develop their own educational program in concert with other teachers and choose a mini-school that fits their vision and teaching style.
- **Recommendation 3** would require schools to have a coordinating council, consisting of teachers and the administrator, that would plan for the school and make major decisions about curriculum, instruction, staff development, and technology use. Moreover, Recommendation 3C proposes incentives to establish teacher teams, which would be the core of mini-schools, the unit responsible for each student, and be the means for ending the isolation of teachers.
- **Recommendation 4** proposes practitioner-based staff development and would allow teachers to decide on the type and amount of staff development they need to stay current in their fields and do their job effectively. In addition, Recommendation 4C urges that schedules and teaching assignments be arranged in much more flexible ways that free teachers' time and allow them to be more productive.

If these proposals were implemented, the nature of the teaching would be transformed. This section's recommendations complete the reforms by proposing steps to strength the teaching profession in line with the new responsibilities, freedom, and authority that teachers would have.

These reforms are particularly timely. Over the next ten years, an entire new generation of teachers will enter the profession. From 6 percent to 8 percent of the current teaching force leave the profession every year, and within a decade up to half of today's teachers will have left.[1] Between retirements and enrollment growth, over 150,000 new teachers may be needed before the turn of the century, based on current pupil/teacher ratios (Cagampang et al., 1986). There is a window of opportunity to introduce these new teachers (as well as a new generation of administrators) into a system that is more productive, more effective, and a better place to work.

This chapter proposes the following recommendation to accomplish these goals:

> *The teaching profession should be strengthened by establishing a multi-tiered system of teaching, upgrading entry standards, instituting internship prior to tenure, establishing requirements for maintaining high standards, and raising teacher salaries.*

5A: Establish multi-tiered teaching system with higher salary rates

5B: Upgrade the process of becoming a teacher

5C: Assure continuing high professional standards

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[1] See the Appendix on transition and cost for estimates of the demand for teachers from 1988 to 2000.

5A: ESTABLISH MULTI-TIERED TEACHING SYSTEM WITH HIGHER SALARY RATES

New categories of teachers should be added to the existing teaching force, and salary rates should be increased substantially above cost of living allowances.

1. **Categories.** The categories of teachers would be Intern Teacher, Teacher, and Lead Teacher, plus Assistant Teacher and Adjunct Teacher.

2. **Lead Teachers.** Lead Teachers would head teacher teams and direct the training of Intern Teachers (see Recommendation 5B). They would earn more than Teachers, and unlike current Mentor Teachers, they would maintain their positions unless they received negative evaluations.

3. **Assistant Teachers.** Assistant Teachers would be paraprofessionals with more training and responsibility than aides, but less than full Teachers. Assistant Teachers would be certificated by the state and would meet a minimum state requirement of two years of post-secondary education.

4. **Adjunct Teachers.** Adjunct Teachers would be hired by schools and be specialists from all walks of life who would teach occasional classes, work with individual students, or help prepare curriculum materials.

5. **Compensation.** All K-12 teachers would receive state-funded salary increases over a six- to eight-year period designed to bring their base compensation to a level at least twenty percent higher (in constant 1986 dollars) than their compensation in 1988-89.

A. The Need

Teachers lack control, respect, understanding, and other supports noted at the outset of this section. No wonder, then, that many leave the profession for more rewarding occupations. In fact, over half of entering teachers leave within five to seven years, with attrition particularly heavy after the first year or two (Schlechty and Vance, 1983). Teachers' salaries are rigidly determined and are too low, especially for outstanding teachers with options outside of teaching. Teachers in many schools do not participate in decisions that affect them and the educational program. Many teachers are simply isolated in the classroom.

Research has shown that teachers are interested in opportunities for professional growth and advancement, and that many are unhappy with the flat career path now available to them (Bredeson, et al., 1983; Chapman and Hutcheson, 1982; Frataccia and Hennington, 1982). In California, for example, promotion for most teachers means movement along a salary schedule that provides small increases for each year of service and additional increases for attaining higher postsecondary degrees (or units of postsecondary course credit). The Mentor Teacher program is an exception to this pattern, but is available to only five percent of California classroom teachers.

This recommendation calls for a multi-tiered teaching system to strengthen the teaching profession. The multi-tiered approach is consistent with numerous recommendations for the professionalization of teaching made by state and national commissions, with efforts now underway in a number of states, and with the views of many teachers as revealed by recent research. In California, for example, the Commons Commission of 1985 recommended a restructuring of professional opportunities for teachers, including several distinct career steps. Nationally, similar recommendations were made by the Carnegie Forum in A Nation Prepared. A number of states and districts have begun to implement such systems. Before presenting the details of this report's proposal for a multi-tiered teaching, the following discussion reviews some other proposals.

The Commons Commission. The California Commission on the Teaching Profession, the Commons Commission, recommended the following career path for teachers:

1) Teacher in Training
2) Probationary Teacher
3) Tenured Teacher
4) Board Certified Teacher

Board Certified Teachers would be eligible to qualify as Mentor Teachers, Peer Evaluators, or in other advanced positions which "increase the variety and responsibility in teaching (Commons, et al., 1985)." Career advancement would be based on performance as well as seniority: tenure would require a residency and passage of a licensing exam. Board certification would depend on advanced coursework and further examination. The Commission also recommended higher salary schedules and bonuses based on career level.

The Carnegie Forum. The national report, A Nation Prepared, called for a restructuring of the teaching force and introduction of "a new category of Lead Teachers with the proven ability to provide active leadership in the redesign of the schools and in helping their colleagues to uphold high standards of learning and teaching (Carnegie Foundation on Education and the Economy, 1986)." In making this recommendation, the report reinforced at the national level reform efforts underway in California and other states such as Minnesota (Berman, et al., 1984) and those discussed below.

Tennessee. Tennessee's Career Ladder, enacted in 1984, includes five teacher levels:

1) Probationary - first-year teachers; receive certification after a positive evaluation.
2) Apprentice - three-year Apprenticeship with an annual supplement of $500.
3) Career Level One teachers - certification good for five years; tenured, they receive an annual stipend of $1000 and supervise student interns and Probationary teachers.
4) Career Level Two - certificates are also good for five years, with stipends of $2,000-4,000 per year. Extra duties include working with remedial and gifted students.
5) Career Level Three teachers - certified for five years; they earn an additional $3,000-7,000 per year, supervise apprentices, and evaluate other teachers.

Participation in the Tennessee Career Ladder is mandatory for all teachers hired since 1984. To qualify, teachers must pass the National Teacher Examinations (NTE) and be recommended to the State Department of Education, *or* successfully complete a local staff development program meeting state standards.

Career Level Two teachers have the option of working 10- or 11-month contracts (with more pay for the latter). Career Level Three teachers choose 10-, 11-, or 12-month contracts.

Teachers at Career Levels One, Two, and Three are evaluated twice during each five-year period by Career Level Three teachers. The state set the evaluation criteria, which fall into six domains of teacher competency: (1) preparing instruction effectively, (2) using appropriate teaching strategies, (3) using evaluation results to improve, (4) managing the classroom well, (5) taking on roles of professional leadership, and (6) communicating effectively. Evaluators make use of classroom observations, teacher portfolios, interviews with the teacher, peer surveys, student surveys, principal surveys, and written tests.

Principals recommend promotions to the Apprentice level and to Career Levels One, Two, and Three. The local school board approves the promotions. However, the state certification commission has final approval of promotions to any Career Level and has a review process to determine whether it agrees with local evaluations.

Utah. In the Utah public school system, all forty districts have implemented career ladders for teachers, despite a strong teacher union and collective bargaining. Utah combines decentralized planning with statewide career ladders, beginning with a broad-based planning process involving teachers, parents, and administrators. Participating districts are required to involve teachers, parents, and administrators in the planning process. Each plan includes a multi-leveled ladder with placement criteria, performance expectations, and a compensation schedule for placement at different levels. The State's appropriation for the Career Ladder System in 1986-87 was over $34 million.

Utah grants funds to participating districts according to two dimensions: vertical and horizontal. The vertical dimension refers to funds the district may earmark for performance bonuses, differentiated pay for career levels, and job enlargement (extra pay for extra work); the horizontal dimension refers to district uses of funds which impact all teachers in the district - e.g., extended contracts. The law requires that 10 percent of a district's career ladder funds be spent for performance bonuses and that no more than 50 percent may go toward the horizontal dimension.

One example of a career ladder in Utah is that of Weber School District. Twenty-nine percent of Weber's career ladder funds were used for performance bonuses ranging from $100-700 per teacher.[2] All teachers in the District are eligible for a performance bonus based on an administrative evaluation of their classroom and professional performance as measured by the Weber Improving Teacher Competency (ITC) model. The principal is responsible for conducting two evaluations of each teacher per year -- one scheduled and one unannounced.

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[2] Weber budgeted its 1986-87 career ladder funds as follows: 29.1 percent for performance bonuses; 15.8 percent for career ladder levels; 39.5 percent for extended contracts; and 15.6 percent for job enlargement.

Weber's career ladder includes four levels:

1) Level I - all first and second-year teachers or any other teacher who does not have a Standard Certificate from the state; must be evaluated once per year; no job enlargement allowed and no stipends given.
2) Level II - certified teachers who perform all regular duties of teachers, but with no job enlargement; they may receive annual stipends of $100.
3) Level III - Level II teachers who have submitted a dossier to the principal for review; they are eligible for job enlargement and stipends of $300.
4) Level IV - must be selected by principal and peers as mentor, submit extra material for dossier, and score higher on the evaluation; eligible for job enlargement and a stipend of $500 per year.

Teachers at Levels I, II, and III must score 3 or above out of 5 on each of the twelve evaluation scales in the ITC in order to receive performance bonuses and/or career ladder stipends. Level IV teachers must score 4 or above.

Level III and IV teachers are eligible to participate in one of eleven different job enlargement categories, for which they may earn up to $800 subject to review and approval by a Career Ladder Oversight Committee. Examples of job enlargement include work on a peer review committee or career ladder committee, homework hotline teacher, gifted facilitator, or core curriculum facilitator.

Rochester, New York. Teachers new to the Rochester City School District enter at one of three career levels: Intern, Resident, or Professional Teacher, with starting salaries based on years of experience.[3] An Intern is a beginning teacher who has no experience in any district; interns teach 80 percent of the time and receive "mentoring" the other 20 percent . A Resident is a teacher new to the district but who has experience elsewhere and who has not yet earned permanent certification from the state, which requires a Master's degree and two years of teaching experience. The internship and residency are conditions for earning, and count toward, tenure.[4]

After earning permanent certification and gaining enough years of experience, the teacher becomes a Professional. Professional Teachers have the opportunity to serve as Lead Teachers and to receive extra stipends for assuming added responsibilities.

Lead Teachers receive stipends above their salaries as Professional Teachers; such pay is intended as recognition for additional time and work (rather than as merit pay). Criteria for Lead Teachers include evidence of professional growth, demonstrated outstanding classroom teaching ability, effective written and oral communication skills, ability to work cooperatively and effectively with other staff, extensive knowledge of a variety of classroom management and instructional techniques, and leadership skills. Lead Teachers' duties may include, but are not limited to: consulting for interns, adjunct faculty at institutions of higher education, and curriculum, staff development, testing, or research specialists.

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[3] The starting salary for interns is contracted to increase to $26,067 in 1988 and to $28,935 in 1989.

[4] Also, in contrast to California, prospective teachers in New York are required to pass the NTE Core Battery exam.

A Joint Governing Panel for the program comprises representatives of the district and the Rochester Teachers Association (RTA). The Panel has the authority to determine the specific details of the program, subject to approval by the RTA Representative Assembly and the school board. The Panel also selects Lead Teachers.

B. Design Details

Drawing on the plans discussed above plus others, this report proposes the following tiers:

1) Assistant Teacher and Adjunct Teachers
2) Intern Teacher
3) Full Teacher
4) Lead Teacher.[5]

Assistant Teachers. Assistant Teachers would be paraprofessionals with more training and responsibility than aides, but less than full Teachers. Assistant Teachers would work under Teacher supervision to help increase the frequency of student - adult contact and contribute to the effectiveness of the teacher teams.

The duties of Assistant Teachers might include tutoring individual students, leading small group discussions, preparing and distributing curriculum materials, assisting Teachers with classroom management and routine clerical tasks (e.g., attendance), and monitoring, scoring, and recording results from student diagnostic and other tests. They could also introduce and manage classroom computer technology, demonstrate experiments, lead field trips, and help prepare reports to parents.

Assistant Teachers would be certificated rather than credentialed. A certificate, issued by the state at the request of an School Parent-Community Governing Body, would confer the right to teach and provide related services under the direct guidance of Teachers or Lead Teachers. The certificate would not entitle the holder to the same rights as those of credentialed Teachers (e.g., tenure, seniority). Assistant Teachers would be required to have at least two years of post-secondary education; additional criteria for their employment would be left to the discretion of districts and School Parent-Community Governing Bodies. Thus, they might have an associate degree from a community college, a bachelor's degree from a four-year college or university, or be a third- or fourth-year college student working part time. College students enrolled in substantive majors could tutor individual students in need of remediation or enrichment, or could lead small group discussions in depth on particular topics.

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[5] In the current system, teachers can advance by becoming a principal, a district specialist, or a district administrator. This report's reforms would have the effect of reducing positions at the district administrative level. However, Recommendation 4A proposes another career option - namely, teachers and administrators could become members of the Institutes for School Development.

Assistant Teachers would be hired under limited, fixed-term contracts by the School Parent-Community Governing Body. Assistant Teachers would earn substantially less than Teachers. On average, Assistant Teachers would be paid an annual salary of $17,000 (in 1986 dollars), with actual salaries determined by the School Parent-Community Governing Body. Funding for Assistant Teachers would come from the School Discretionary Budget (see Recommendation 3A).

The addition of Assistant Teachers would dramatically decrease student-adult ratios, and enable Teachers to adapt instructional schedules and curriculum planning to meet diverse student needs, as well as the needs of the teaching staff. Teachers would gain more control over the use of their time, and could concentrate on instruction instead of housekeeping tasks. The resulting increase in teacher productivity and effectiveness would greatly improve professional morale, the general climate for learning, and the attractiveness of teaching as a profession.

Adjunct Teachers. Adjunct Teachers would be specialists from all walks of life who would teach occasional classes, work with individual students, or help prepare curriculum materials. The School Parent-Community Governing Body would hire Adjunct Teachers on a flexible, short-term basis, with the length of contracts negotiated to fit specific circumstances. Funding for these positions would come from the School Discretionary Budget, and there would be no state credentials or certificate required for an Adjunct Teacher.

Adjunct Teachers might come from business or industry, the arts, professions, crafts or trades, or public service. They would provide guest lectures, lead seminars or other small group discussions, help prepare specialized curriculum materials, and occasionally work with individual students for limited periods of time.

Adjunct Teachers' salaries would be locally negotiated to fit the widely varying conditions of their employment. Thus, a visiting lecturer in science from a large company might have his or her salary defrayed by the firm, whereas a local artist hired to teach one class a day for a year might be paid by the school at a rate agreed to by both parties.

Intern and Full Teachers. Recommendation 5B has a full discussion of the Intern Teacher, who would serve an apprenticeship under a Lead Teacher and be a member of a teacher team. In all other regards, they would function as a Full Teacher. The Full Teacher's role would evolve as teachers use new instructional techniques and are members of a teacher team (see Recommendation 3C). All teachers would receive state-funded salary increases over a six- to eight-year period designed to bring their base compensation to a level at least twenty percent higher (in constant 1986 dollars) than their compensation in 1988-89. That is, these salary increases would be in addition to annual cost-of-living increases. Additional compensation above this level could be negotiated by teachers and districts.

Lead Teacher. Lead Teachers, selected on the basis of ability and experience, would play a key role in the improvement of curriculum and instruction in a reorganized public education system. As head of a teacher team, each Lead Teacher would participate in determining, in consultation with team members, the team's workload, scheduling, and division of labor best suited to meet student needs (see Recommendation 3C for a further discussion of Lead Teacher responsibilities). The Lead Teacher's time would be spent in direct instruction and related classroom duties, on the one hand, and in guiding and supporting other team members, on the other hand. They would also train student peer tutors and work closely with Intern Teachers (see Recommendation 4B). Lead Teachers, as members of School Coordinating Councils, would participate in school-wide planning -- including the setting of student learning goals -- and would help to determine school budget priorities. They also would have special responsibilities as a cadre for introducing modern instructional techniques, and planning staff development. On a rotating basis, all Lead Teachers would attend Institutes for School Development (see Recommendation 4A).

Lead Teachers would be nominated by School Coordinating Councils from among the most able, dedicated, and talented teachers in each school. Criteria for their selection would be developed locally. They would not be credentialed or certificated by the state. The state would require only that nominees have a minimum of five years of classroom teaching experience as a fully credentialed Teacher within the eight year period preceding their appointment.

In the model envisioned in this report, the nomination of each Lead Teacher would be reviewed by a three-member panel composed of Teachers selected by their peers. One panelist on this Lead Teacher Panel would be a teacher from the appointee's school; one would be a Teacher from the same district; one would be from outside the nominee's district (in one-school districts, two would be from outside). The Panel would review the selection criteria used by the nominee's School Coordinating Council, to insure both that the criteria were sufficiently rigorous and that the nominee met the criteria. The School Coordinating Council would receive input from the Panel and could then act to appoint the Lead Teacher to serve for one year in an acting capacity. At the end of that period, the Acting Lead Teacher would be evaluated by the Panel and the school principal and the Panel and the principal would make a recommendation to the School Coordinating Council. With council approval, the Lead Teacher would serve an additional three-year appointment, renewable every three years following a Panel and principal evaluation. The system presumes that Lead Teachers would continue to serve in the position unless they received negative evaluations. Despite the three-year terms, the School Coordinating Council could return Lead Teachers to their Full Teacher status at the end of any year.

Lead Teachers would have full tenure as Teachers, which would not be affected by a failure to be re-appointed as a Lead Teacher, or by a decision to resign from a Lead Teacher position. They would work on an eleven-month contract, and the state would provide enough funding for all Lead Teachers to receive an additional twenty percent stipend to compensate for their added responsibilities and longer contract.

5B: UPGRADE THE PROCESS OF BECOMING A TEACHER

The process of becoming a teacher should be strengthened by replacing current credential requirements with a professional teacher examination, an internship period, and peer evaluation.

1. **Professional Exam.** Teacher candidates would have to obtain a bachelor's degree in a substantive major and pass a rigorous Professional Teacher Examination that tested them in subject matter, pedagogy, and effective instructional strategies (e.g., mastery and cooperative learning, techniques for flexible scheduling, and the use of educational technologies).
2. **Deregulation.** When the Professional Teacher Examination is phased in, state credential requirements specifying teacher preparation courses would be eliminated.
3. **Internship and Evaluation.** Candidates who pass the Professional Teacher Examination would become Intern Teachers and serve a four-year internship under the guidance of Lead Teachers. They would become Teachers and obtain tenure if they were successfully evaluated by a Teacher Assessment Panel composed of their Lead Teacher, a Teacher peer trained in evaluation, and their school principal.
4. **Fast Track Program.** The state would establish a means for teacher candidates to accelerate their entry into the profession.
5. **New Teaching Board.** A California Teaching Standards Board, a majority of whose members would be teachers, would be established to set professional standards for teachers, approve the Professional Teacher Exam, issue credentials and certificates, and oversee the teacher evaluation process.

A. The Need

It is extremely easy to become a teacher in California, and even easier to receive tenure. Lax requirements weaken public confidence in the quality of teachers. This recommendation proposes measures that would upgrade the induction process and reassure the public that teachers are fully qualified professionals deserving the higher pay scale and autonomy proposed throughout this document.

Teacher Preparation Programs Are Inadequate

A major factor contributing to the public's low respect for teachers is that many teacher preparation programs do not adequately train teachers in new instructional techniques and the use of modern technologies.

Upgrading the process of becoming a teacher is especially important, not simply because unqualified individuals now enter teaching, but also because low standards shortchange all teachers and dampen respect for the many excellent teachers. In order to understand why this is so, it is necessary to briefly examine the current credentialing process.

Under current law, prospective teachers are required to earn a bachelor's degree and to complete a year of teacher training that includes both university coursework and practice teaching under the supervision of a credentialed teacher. They may complete this training either as part of their undergraduate education or in post-baccalaureate studies. In the latter case, they may teach for up to five years with a preliminary credential while completing their studies. All prospective teachers must also pass a basic skills examination in reading, writing, and mathematics -- the California Basic Educational Skills Test (CBEST).

Teacher candidates who have fulfilled the above requirements may apply for a clear (renewable) credential if they have passed relevant subject matter portions of the National Teacher Examination (NTE), *or* have completed a program of undergraduate studies approved by the California Commission on Teacher Credentialing. Very few candidates elect to take the NTE. College and university teacher training programs are approved by the Commission following review of institutional catalogues and course descriptions. A more detailed program review is conducted every five to seven years.

Candidates who have completed a bachelor's degree, passed the CBEST, and successfully completed an approved program of teacher education are eligible to receive a clear teaching credential upon the recommendation of their teacher education institution. There are currently sixteen credential categories embracing over eighty-five separate teaching credentials, each with its own set of course requirements. Virtually all candidates recommended by institutions with Commission on Teacher Credentialing-approved programs are awarded credentials.

Supplementary subjects may be added to either a multiple or single subject teaching credential on the basis of 20 semester units or 10 upper division semester units of non-remedial coursework with a grade of C or better in approved subjects.[6] Again, the Commission merely approves courses which meet this requirement.

The clear credential is renewable every five years, providing the teacher has completed 150 hours of staff development coursework or related training, and has taught for at least a half-year over the five year period. With respect to evaluations of experienced teachers, principals are responsible for conducting periodic evaluations of teachers. Tenure laws govern the consequences of teacher performance. The Commission on Teacher Credentialing does not have an effective process for invalidating credentials based on proven incompetence of teachers.

Based on the structure of the current credentialing process and criticisms of the system in recent literature, the problem is evident: the credentialing process certifies pre-approved courses of study rather than the competence of potential teachers. As noted by the Commons Commission, "the content of teacher education courses is not necessarily linked to available theory about how to teach nor to the reality of teaching in a classroom (Commons, et al., 1985)."

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[6] The list of approved subjects which may be added to a valid single subject teaching credential is contained in California's Title 5 Regulations, Section 80089.1.

The primary criterion for teacher credentialing is completion of an approved teacher education program and recommendation for the credential by the college or university. Candidates so recommended are rarely turned down. There is no effective mechanism for oversight of teachers' progress in the credentialing process.[7] In effect, the Commission on Teacher Credentialing certifies the program, not the teacher.

Standards for Teaching Credentials Low

Teaching credentials are easy to obtain, and are based on courses taken rather than measures of knowledge, skill, and ability to teach. This is not to say that teachers are to blame, nor that most teachers are not qualified to teach. Rather, low standards harm teachers' reputation and morale. Also as a consequence of low standards, teacher education programs are able to accept college students whose test scores rank near the bottom of the scale compared to students entering other professions.[8] These highly publicized test scores further damage the prestige of the profession.

As a step in the direction of holding individual teachers accountable for their performance in teacher preparation programs, legislation passed in 1983 requires all teachers to take CBEST. However, CBEST is not a test of teaching knowledge but of general aptitude in reading, writing, and math. It sets the minimum acceptable level of teacher literacy. Furthermore, CBEST and teacher preparation coursework are unrelated. The state requires teachers to complete coursework but does not hold them accountable for the content of those courses.

Simply raising the required passing score on CBEST is an unacceptable option, because evidence shows minorities suffer higher failure rates than whites on CBEST. It is important to ensure that racial bias in teacher tests items is not a factor in pass rates. Of 6,644 minority candidates in California who took the first CBEST exam in 1983, only 2,790, or 42 percent, passed. In contrast, 76 percent of 24,540 whites passed. Other states have experienced similar disproportions. At the same time, demographic trends show an increasing need for qualified minority teachers. Participation of minorities in teaching has improved, but minorities continue to be under-represented. In 1975-76, minorities comprised 12 percent of California's schools' certified employees, whereas now they constitute 19.8 percent; yet, 48 percent of K-12 pupils are minorities (Gifford, 1987).

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[7] There is, however, a mechanism for oversight of approved programs. The Commission on Teacher Credentialing conducts program reviews every five to seven years of the institutions of higher education and local educational agencies which recommend students for credentials.

[8] The SAT scores of intended education majors are lower than those of almost every other intended major. In 1985, the national average SAT score was 906, but only 836 for intended education majors. Data from 1984 -- the most recent available data for California -- show that all students' SAT scores averaged 476 for math and 421 verbal, while intended education majors averaged 431 in math and 400 verbal, or 7 percent lower overall than the California average. See Feistritzer (1985), pp. 72, 74-77.

Emergency Credentials represent a prime example of loopholes in the credentialing process which lower professional standards. The Commission on Teacher Credentialing demands minimal qualifications of individuals teaching on a preliminary or emergency basis. Requirements for an initial one-year emergency credential (long-term substitute or replacement) include a bachelor's degree, CBEST, a statement of need from employing school district, and enrollment in a program to complete the requirements for the appropriate preliminary or clear credential.

Renewal of the one-year emergency credential requires only a statement of need from the employing school district and completion of six semester hours of course work toward the specific preliminary or clear credential.

In 1985-86, 28 percent of all added teaching credentials were emergency credentials, and roughly nine out of ten full-time single subject (secondary school) emergency credentials were issued in the core subjects of mathematics, English, science, and social studies (Policy Analysis for California Education, 1988). Unfortunately, school districts facing severe teacher shortages have little choice but to rely on emergency credentials.

Credentialing by Program Approval Inefficient

The state and a variety of local educational agencies perform the teacher credentialing function at significant combined expense. Certification by program and course approval requires a vast army of credential analysts whose job it is to verify that teachers' transcripts reflect the required courses. These people must routinely make judgments about a teacher's qualifications by assuming the nature of a course's content from the five or six words in a course title. The Commission rarely denies certification to program-recommended candidates. Very few direct applicants (teachers from out-of-state and teachers applying for credential renewal) are turned down based on the nature of their coursework.[9]

This report's proposals addresses the issue of inefficiency by revamping state oversight of the credentialing system and by placing more authority in the hands of teachers in the process.

Emergency Credentials Inadequate Response to Teacher Shortage

Educators in California cannot ignore that many school districts will face teacher shortages in the immediate future. School districts need some mechanism other than emergency credentials through which to meet demand under less restrictive standards. Emergency credentials highlight a serious but often obscured structural problem: the state is experiencing a decline in the number of teachers trained in the same core subjects we expect students to master. From the fully qualified teacher's point of view, the current process permits untrained teachers to do the same job as permanent teachers. From a union perspective, emergency credentials and waivers can be exploitative of teachers when used to allow districts to avoid granting tenure.

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[9] CTC personnel estimate that no more than 20 percent of the direct applicants are turned down initially, usually for technical reasons - e.g., no transcripts enclosed. Most of these reapply successfully. No study has been done of the acceptance/rejection ratios. Interview with Bobby Fite, Credential Analyst, CTC, February 16, 1988.

B. Design Details

This report recommends that the process of becoming a teacher be strengthened by replacing current credential requirements with a professional teacher examination, an internship period, and peer evaluation. More specifically, we propose that:

- Teachers would obtain a bachelor's degree in a substantive major.
- Teacher candidates would have to pass a state teacher examination that tested them in subject matter, pedagogy, and learning theory.
- Teacher preparation would be deregulated; there would be no state requirements defining teacher education programs.
- Teachers would serve a four-year internship under the guidance of a Lead Teacher, and would have to be successfully evaluated by a peer evaluation team, before a clear teaching credential were issued and tenure granted.

These reforms would work in the following way. Teachers would be credentialed following the completion of revised preparation requirements that would replace the current system. They would obtain a bachelor's degree with a substantive focus in one or more core areas. After passing a rigorous teacher examination covering substance, pedagogy, and learning theory, they would receive a four-year (non-renewable) provisional credential, serve a four-year internship with a Lead Teacher, and be evaluated by a Teacher Assessment Panel composed of teachers and an administrator. Upon satisfying these requirements, the Teacher would receive a clear credential and tenure. An alternate Fast Track Program would enable Teacher candidates to receive a provisional credential upon passage of the substance portion of the teacher examination, with the requirement that the pedagogy and learning theory part of the examination be passed by the end of the four-year internship period.

1. Professional Exam. *Teacher candidates would have to obtain a bachelor's degree in a substantive major and pass a rigorous Professional Teacher Examination that tested them in subject matter, pedagogy, and effective instructional strategies (e.g., mastery and cooperative learning, techniques for flexible scheduling, and the use of educational technologies).*

After carefully development, pre-testing and pilot trials, a set of new professional teacher assessments would replace CBEST. Because teacher preparation would be driven by the content of the professional assessments (instead of course content), the professional assessments would have to be well designed. They would be rigorous evaluations employing a mix of written and oral assessments and practical exercises for evaluating teaching competence in addition to knowledge and theory. The assessments would not consist simply of standardized paper-and-pencil tests. Candidates would be evaluated by experienced teachers using a wide range of empirical methods.

The basic skills portion of the assessments would cover a particular set of teaching competencies to be determined by the Teaching Standards and Credentialing Board (discussed below).

The substantive professional exams would vary according to the type of credential sought by the teaching candidate. For prospective elementary school teachers, exams would likely cover knowledge of English, arithmetic, reading, history, geography, psychology, and other subjects, at a level appropriate for a holder of a bachelor's degree from an accredited four-year college or university. Prospective secondary school teachers, would be tested in more depth in fields in which they wish to be credentialed. In any case, the state would authorize the Teaching Board to determine the list of subjects to be included in the battery of substantive exams.

2. **Deregulation**. *When the Professional Teacher Examination is phased in, state credential requirements specifying teacher preparation courses would be eliminated.*

Specific course requirements applicable to teacher education programs would be eliminated. Instead, the professional assessments would be the mechanism which holds colleges and universities accountable for the content of their teacher education programs.

Deregulation of Teacher Preparation. The Professional Teacher Examination would replace all current course and program requirements for obtaining a credential. The state would no longer require candidates to complete an approved program of teacher education, would not specify how prospective teachers would be trained, and would no longer certify or approve teacher education courses offered by public or private institutions. Colleges, universities, and other providers would be free to develop programs they felt could best meet the needs of students preparing to take the examination. They would be free to offer comprehensive preparation programs; inaugurate programs aimed particularly at the needs of candidates in high demand areas (e.g., mathematics, the sciences, bilingual education); focus on intensive training in particular instructional strategies (e.g., individual learning programs); or offer any other program of preparation they felt to be consistent with their goals and capabilities. All public and private providers of teacher preparation programs would be required to publish comprehensive information on their goals, programs of study, course offerings, and instructional resources. They would also be required to make public the Professional Teacher Examination pass and fail rates of their graduates, as well as statistics on their graduates' credentials and initial employment.

Elimination of Emergency Credentials. The state would no longer issue emergency credentials. Districts would be permitted to establish their own qualifications for Teachers hired as short-term substitutes (assigned for no more than thirty days to one classroom), and would be required to make those criteria widely known to their communities. Long-term substitute teaching assignments would be handled by Teachers with provisional credentials in the Fast Track Program; the requirements for their continuing education are similar to current requirements for the continuing education of long-term substitutes. There would be no change to current regulations permitting credentialing requirements to be waived for specified periods of time under certain circumstances.

In 1983, the New Jersey legislature enacted changes which deregulate teacher preparation course requirements. The state no longer mandates that prospective teachers earn specific numbers of credits in particular education courses. Instead, teachers are expected to master a body of knowledge defined by a set of curriculum areas. A special panel headed by Ernest Boyer convened in 1984 and developed the model for New Jersey's teacher preparation curricula.[10]

3. **Internship and Evaluation.** *Candidates who pass the Professional Teacher Examination would become Intern Teachers and serve a four-year internship under the guidance of Lead Teachers. They would become Teachers and obtain tenure if they were successfully evaluated by a Teacher Assessment Panel composed of their Lead Teacher, a Teacher peer trained in evaluation, and their school principal.*

Upon passing the professional assessments, a prospective teacher would receive a preliminary (or provisional) credential and serve as a intern under the supervision of a teacher. During this period, new teachers would gradually assume more and more responsibility as part of the teacher team until they were able to assume full team responsibilities. The years spent in the internship would count toward tenure.

Although the term of the internship would generally be fours years, the term might be flexible and depend on the relative progress of individual teachers. For example, some teachers may demonstrate mastery of instructional skills and ability to assume full responsibilities within the team after three years. If the evaluation team judges that the teacher is ready, it may nominate the intern for the clear credential after three years.

Interns would receive formal evaluations over the course of their internships from a Teacher Assessment Panel. Each Teacher Assessment Panel would be composed of a teacher from outside the new intern's district who is trained in peer evaluation, the teacher to whom the intern is assigned, and the intern's principal. Evaluations would be both formative and summative. The main purpose of these evaluations would be to identify areas of weakness, to provide help and advice, and to suggest ways in which the intern teacher could improve. At the end of the internship, the Teacher Assessment Panel would formulate an overall evaluation and decide whether or not to recommend the candidate for the clear credential. The state's credentialing agency would review the recommendation, comparing it to the Board's own set criteria, and decide whether or not to grant a credential. If granted, the teacher could receive tenure from a local school district.

The state's credentialing agency would suggest guidelines for evaluations which might include the use of student test scores, classroom observations, teachers' individual performance goals, records of work in staff-development workshops, service on school planning committees, student surveys, peer surveys, and supervisors' evaluations. Evaluations would tell teachers what they are doing right and wrong and what actions would help them improve.

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[10] Interview with Ellen Schechter, Director of Provisional Teachers Program, New Jersey Board of Education, February 18, 1988.

The state's credentialing agency would determine the process for choosing teachers who serve on the Teacher Assessment Panels. Panels would comprise a majority of teachers, including at least one teacher from outside the district of the teacher being evaluated and at least one from the same district. The rest of the members would be experts on evaluation. Other than during the initial implementation phase, it is likely that Teacher Assessment Panel membership would draw from a pool of experienced teacher-evaluators who might be housed at Institutes for School Development (see Recommendation 4A).

The state would purchase training for evaluators from many sources. Institutes for School Development, professional organizations, unions, schools of education, and private providers might all play roles in providing training. The state would fund paid leaves of absence to teachers who serve on Teacher Assessment Panels.

The type of evaluation procedures described here are practical. For example, as part of its Entry-Year Assistance Program, Oklahoma evaluates all beginning teachers using the Oklahoma Observation Instrument. The instrument is comprised of 36 indicators in four areas: human relations, teaching and assessment, classroom management, and professionalism. There is no scoring key for the evaluation. Observers write a narrative statement indicating strengths, concerns, and recommendations. A committee of three people, including a teacher, an administrator, and a college faculty member, independently observe the beginning teacher three times and meet as a team three times with the entry-year teacher for formative consultation.

A wide range of evaluation instruments is necessary, because no one measure of teaching performance is perfect; all measures have limitations. A range of instruments is necessary to ensure fairness and to maximize predictive capability (Flannelly and Palaich, 1985). Evaluations should be formative in order for teachers to perceive them as beneficial (Handler, 1986).

4. **Fast Track Program.** *The state would establish a means for teacher candidates to accelerate their entry into the profession.*

Teacher candidates who wish to accelerate their entry into the profession would be awarded a provisional credential if they pass the subject matter part of the Professional Teacher Examination, and file a plan with the state credentialing authority outlining a realistic program for obtaining the additional education they will need in order to pass the pedagogy and theory part of the examination by the end of their three-year internship period. They would have the same rights and obligations as other Teacher Interns, would be evaluated by Teacher Assessment Panels, and could take the pedagogical portion of the Professional Teacher Examination as often as they wished during their three-year internship period. Those who did not pass by the end of their internship period would not be authorized to teach, and would not receive a clear credential, until they had passed. The state credentialing authority would publish yearly statistics on the number of Fast Track Teacher Interns with provisional credentials, and their degree of success in passing the Professional Teacher Examination.

5. **New Teaching Board.** *A California Teaching Standards and Credentialing Board would be established to set professional standards for teachers, approve the Professional Teacher Exam, issue credentials and certificates, and oversee the teacher evaluation process.*

This report proposes that the state charter an autonomous commission to set standards for entry into the teaching profession. The California Teaching Standards and Credentialing Board (CTSCB) would be established to:

- Institute the new set of credential requirements, including professional assessments, a mandatory internship, and evaluation;
- Set guidelines for the general content and format of the professional assessments, contract with a test-development agency to design the assessments, and validate the assessments;
- Set guidelines for the content and format of evaluations of both beginning and experienced teachers and establish Teacher Assessment Panels to conduct evaluations of beginning teachers; and,
- Deregulate teacher education by gradually eliminating course credit requirements for entry into the profession when the new teacher examinations and other reforms proposed above are in place.

The Teaching Standards and Credentialing Board would replace the current California Commission on Teacher Credentialing. Its membership would be composed of a majority of teachers. The Board would also include representatives from teacher preparation programs, experts on teacher evaluation, school administrators, and the community. In addition, experts on racial and ethnic bias in testing would be members. The State Board of Education would appoint all members to the CTSCB.

The CTSCB would be expected to call upon a broadly representative group of teachers to participate in the development of guidelines and evaluation criteria for peer assessment purposes. Without such participation, teachers in general would be unlikely to accept evaluation procedures as a legitimate gauge of their classroom effectiveness (Dornbusch and Scott, 1975).

For example, in the Tennessee plan discussed under Recommendation 5A, a much publicized career ladder was implemented in which evaluation played a critical role in determining teacher promotion. Because teachers were not included in decision making in the Tennessee career ladder, nearly two-thirds of those surveyed challenged the fairness and legitimacy of the evaluation system (Rosenholtz, 1987).

C. Benefits

Professional Exam Would Shift Basis for Certification to Performance

Under current law, teachers are required to earn a bachelor's degree and complete a year of teacher training that includes university coursework and practice teaching under the supervision of a credentialed teacher. This process relies on certifying courses and programs of study, but provides no assurance that approved courses were well taught or that teacher candidates are adequately prepared. Courses are certified, not the competence of prospective teachers.

This recommendation instead focuses on the outcomes of teacher preparation by proposing a rigorous examination to test candidates' knowledge followed by evaluation to assess their teaching.

Professional Exam Would Improve Teacher Preparation by Changing Incentives, Not by Increasing Regulations

Presently, prospective teachers must pass a basic skills examination geared to about a tenth grade literacy level.[11] The Professional Teacher Exam, which would replace this test, would be a challenging and fair test of teachers' knowledge in their fields. The Exam would influence the content of teacher preparation, and Colleges of Education could be judged by how well their graduates perform on the examination and subsequent evaluations.

A combination of a rigorous entry-level assessment and substantive exams is a better accountability mechanism than course requirements, because it measures the competence of individual teachers rather than entire teacher education programs. That is, the assessments would focus on the outcomes of teacher education rather than on coursework taken.

By screening out unqualified individuals, the new professional assessments, would increase the prestige of the profession. In addition, they would eliminate the need for Commission on Teacher Credentialing-approved waiver programs by directly influencing teacher preparation curricula. Prospective teachers would be held responsible for certain areas of knowledge, which they could obtain either through formal coursework or by individual study.

The Carnegie Corporation is funding development of new professional teachers' exams which may provide a model for California's assessments. Lee Shulman, a researcher at Stanford University, is developing models for content-testing of practicing teachers for the Carnegie-sponsored National Board for Teaching Standards (NBTS). Such tests would include performance-based exercises, rather than multiple-choice questions, for evaluating subject-matter knowledge. Teachers who successfully complete the exams would earn a certificate of excellence from NBTS, and states and school districts could use test results as they see fit.[12]

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[11] Tests for teachers are now required in a majority of states, and teachers as well as the public are in favor of testing for certification. Thirty-four states require one or more tests of some sort, and in three other states tests have been proposed. California and Oregon require CBEST, while seventeen states require the NTE or some part of it (U.S. Department of Education, What's Happening in Teacher Testing, 1987).

[12] Interview with Phyllis Robinson, Administrative Assistant, Teacher Assessment Project, Stanford University, February 4, 1988.

A Four-Year Internship Plus Evaluation Would Facilitate Learning the Art of Teaching

Under the current system, once candidates receive credentials and find teaching positions, they almost automatically receive career tenure in less than two years. Yet three to four years, and considerable peer support, are needed to master the complex realities of classroom teaching.

The proposed new credentialing system recognizes that teaching is a challenging task that is best learned over time and with the guidance of experienced colleagues. Currently, new teachers in California are asked to assume essentially the same responsibility as veterans; research has shown that this practice leads to high attrition rates among teachers during their first few years (Schlechty and Vance, 1983). The revised credentialing system would provide a four-year internship period for new teachers, during which they would work as part of a team under the guidance of Lead Teachers, and gradually assume increasing responsibility.

An internship requirement would ensure that prospective teachers practice skills necessary for teaching in addition to mastering subject-matter knowledge. The internship would be four years, because beginning teachers need adequate support and evaluation and because it will take time for beginning teachers to gradually assume roles and responsibilities within teacher teams. More would be required of teachers under the new system; therefore, teachers need more time to master teaching skills.

Flexible terms for internships based on individual progress would provide incentives for beginning teachers to master necessary skills. The sooner a teacher passes the end-of-internship evaluation, the sooner he or she gains full status and pay as a teacher. The use of Teacher Assessment Panels to assist and evaluate intern teachers would ensure fairness and would less likely be suspected of abuse than an evaluation system depending entirely of intradistrict staff.

Prior to 1980, only Georgia formally assessed teacher performance as part of the certification process, but now seven states require internship programs using classroom observation techniques (U.S. Department of Education, What's Happening in Teacher Testing, 1987). In Oklahoma's Entry-Year Program, a first-year teacher on a one-year license serves under the supervision of an Entry-Year Assistance Committee composed of an experienced teacher consultant, an administrator, and a faculty member from a college of education. The program has been in place since 1982. To receive a one-year license, a new teacher must graduate from an approved program, pass subject-matter tests, and be recommended by a teacher education program. All first-year teachers enter the program, regardless of where they received their training. The teacher consultant, who is paid a bonus to participate, is responsible for providing 72 hours of observation and consultation. The committee may recommend a second year of internship. After the second year, the committee can recommend either certification or non-certification. Approximately 1,900 teachers were evaluated in this way in 1985.[13]

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[13] Interview with Dr. Ramona Paul, Administrator of Staff Development, Entry-Year Assistance, and Teacher Evaluation, Oklahoma Department of Education, February 19, 1988.

Fast Track Would Replace Emergency Credentials

The Fast Track Program would eventually replace most emergency credentials and waivers with an alternative credentialing process that meets short-term demands while leading to tenure for teachers. Since 1985, the New Jersey Board of Education has administered the Provisional Teachers Program, an alternate route to certification which is actually more demanding than the traditional route. The program is open to undergraduate majors in all fields, not just shortage areas like math and science. An individual with a liberal arts bachelor's degree must pass subject-matter tests (not basic skills tests) and become employed at a district. On a provisional certificate, the teacher serves a one-year internship with intensive supervision from a four-member support team of teachers and a principal. Concurrently, the provisional teacher completes 200 hours of training in pedagogy and teaching methods. Both formative and summative evaluations are part of the internship. This route is more demanding than the traditional route in New Jersey, because normally graduates of four-year programs combining substance and education theory may go straight into teaching without an internship or concurrent coursework. Provisional teachers are paid on the same salary scales as teachers and earn credit toward tenure.[14]

In the first three years of implementation, New Jersey's alternate route has contributed significantly to the total number of new teachers certified. In 1985, 10 percent of all newly certified teachers went through the alternate route, and by 1987 the proportion was up to nearly 20 percent.

The Provisional Teachers Program has also successfully attracted new teachers in the core areas of math, science, and English. In 1987, 11 percent of provisional credentials were in English, 14 percent were in math, and 19 percent were in Science.

The Texas legislature, in its 1984 education reform bill, provided school districts with the option of designing alternative routes according to certification rules developed by the State Board of Education (Education Commission of the States, 1985). Ten such programs have been implemented as of 1987. Dallas, Houston, and San Antonio are among the major cities which have district-run programs, while colleges administer several other programs. One of the state's twenty regional Education Service Centers -- state-supported technical assistance centers for teachers -- runs one of the largest programs.[15]

Texas' alternative route includes passage of the NTE Pre-Professional Skills Test and Texas' customized Examination for the Certification of Educators in Texas (ExCET) subject-matter tests, acquisition of 24 credit-hours in liberal arts subjects, a one-year internship, and completion of state board specifications for training in classroom management. There are no requirements for courses in education theory, with a few exceptions (for example, elementary teachers need six hours in the teaching of reading). The state also exempts teachers certified under this plan from exam requirements relating to pedagogical methods, history of education, and child psychology. Interns are on the normal pay scale, receive credit toward tenure, and assume the same responsibilities as teachers certified through the traditional route. Supervising teachers coach interns, and the state sets the minimum amount of release time given to supervisors. For the most part, however, districts plan the details of implementation. According to the director of the Education Service Center administering an alternative route program, interns' appraisals of the programs are positive. One obstacle being overcome is gaining the support of experienced teachers who question why the alternate route requires few education courses. Principals report that interns are often among the most highly regarded teachers at their schools. Subject-matter tests scores of alternate route teachers have been very competitive with those of other teachers.[16]

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[14] Interview with Ellen Schechter, February 18, 1988.

[15] Interview with Richard Swain, Texas Department of Education, February 10, 1988.

New Teacher Board Would Enable Teachers to Strengthen Profession

California has the opportunity to provide leadership as states join the national push toward strengthening professional standards. In 1985, the Commons Commission recommended establishment of a California Teaching Standards Board which was similar in many respects to the proposal described in this report (Commons, et al.).

A Nation Prepared focused national attention on the need for higher professional standards in teaching (Carnegie Forum on Education and the Economy, 1986). The National Board for Teaching Standards, established as a result of the proposals, is funding development of performance-based standards of teachers (see section on Professional Assessments). Teachers who pass the national assessment would receive a Certificate of Excellence. States have the option of supplementing normal licensing requirements with the National Board's standards.

Although virtually every state has an agency outside the state education agency which sets teacher licensing standards, only Minnesota and Oregon empower teachers with final regulatory authority (American Association of Colleges for Teacher Education, 1987). Since 1973, the Minnesota Board of Teaching has had responsibility for setting the standards and rules for teacher preparation and licensing, continuing education and professional service in the State. Unlike California's Commission on Teacher Credentialing, the majority of the Board's members are teachers. The Board is analogous to state bodies governing professions such as medicine and law (Bray, 1986).

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[16] Interview with Dr. Ellen Snow, Director, Region 20 Education Service Center, San Antonio, Texas, February 19, 1988.

5C: ASSURE CONTINUING HIGH PROFESSIONAL STANDARDS

Teachers and Lead Teachers should be evaluated every three years, and should renew their credentials every seven years.

1. **Formative Peer Review.** In addition to evaluations now conducted by schools, Peer Review Panels would evaluate Teachers to provide feedback exclusively for the Teacher being evaluated. The Panel could suggest staff development as well as other measures for improving performance. (see Recommendation 5B for evaluation of Intern Teachers).
2. **Lead Teacher Evaluation.** Lead Teacher Panels would evaluate Lead Teachers and provide feedback. A negative evaluation could result in a Lead Teacher being reassigned as a Teacher.
3. **Credential Renewal.** Teachers would be required to renew their credentials by taking appropriate substantive sections of the Professional Teacher Examination every seven years. Teachers would have one year in which to pass the re-examination, after which their credential would be suspended until they had passed.

A. The Need

In the current system, once teachers receive tenure, they do not necessarily have the opportunity to receive the continuing staff development so important to the growth and maintenance of professional competence. The average in-service teacher receives fewer than three days of staff development each year, and little of that training deals with instructional problem-solving (Joyce, et al., 1981; Little, et al., 1988). Most teachers compensate for this lack of opportunity by taking courses and doing informal activities to stay abreast of their fields. They usually do this during the summer and on weekends. The implementation of earlier recommendations would help create more time for staff development (see Recommendation 4C), provide the type of staff development responsive to teacher needs (see Recommendation 4A), and offer higher compensation which might reduce the need that many teachers feel to moonlight on other jobs.

These steps may be sufficient for many teachers. However, they would be aided by strengthening the current process of evaluation which tends to be conducted by principals and is not linked to corrective measures of staff development that would further the teacher's growth.

Though accurate data are not available, it is widely asserted that some teachers who hold general credentials have been reassigned to teach classes for which they are not qualified and that some teachers are teaching in rapidly evolving fields despite having limited knowledge, background, or aptitude in these fields. Lacking objective measures for assessing how current a teacher's knowledge is, the public may rightly or wrongly perceive a widespread abuse of tenure provisions that may enable some teachers to continue to teach in fields for which they are not prepared.

To deal with this issue, the current system now requires credential renewal every five years. However, re-certification is obtained by teachers completing courses at universities or given by districts. These courses may consist of Saturday workshops, or longer and more rigorous classes. The quality and impact on teachers' currency in their field are unevaluated and unknown. Some activities may be quite valuable, while others undoubtedly are superfluous. Regardless of their value, teachers are given strong financial incentives to engage in continuing education activities. They receive salary increments on their salary schedule. This is a costly and largely ineffective program, as Recommendation 4A argues.

Thus, in the new system of education where teachers have much responsibility and freedom, there is a need for helpful and legitimate evaluation linked to staff development and for objective means that will enable the public to know that teachers are well-qualified.

B. Design Details

1. **Formative Peer Review.** *In addition to evaluations now conducted by schools, Peer Review Panels would evaluate Teachers to provide feedback exclusively for the Teacher being evaluated. The Panel could suggest staff development as well as other measures for improving performance. (Also see Recommendation 5B for evaluation of Intern Teachers).*

Evaluations can be critical to the continuing growth of teachers, but they seldom are. They are generally conducted by principals who are in the position of having to make summary judgments about the teacher's performance for school records. Many have argued that a peer review approach would be far superior (Commons et al., 1985).

This report proposes that, in addition to whatever school evaluation procedures are used, teachers be evaluated every three years for the purpose of providing them input and helping them design staff development activities suited to their needs. To assure that these evaluations would be most useful, we propose that these feedback evaluations be conducted by a Peer Review Panel.

The Panel would be composed by a Lead Teacher from the school and two other teachers from the school or elsewhere. The teacher being evaluated would select the Peer Review Panel members and the report of the Panels would go directly to the teacher. The teacher being evaluated may elect to make the report a part of her or his record. Panels would be especially asked to consider means that teachers could take to continue their growth and correct any deficiencies. With the teacher's permission, recommendations for staff development could be forwarded to the School Coordinating Council and Institutes for School Development.

In some states educators are improving systems of evaluating teachers and the most effective evaluation systems are designed locally with technical assistance from outside the district.

School districts in Oregon are taking advantage of a teacher evaluation system developed by the Northwest Regional Education Laboratory (NWREL) in Portland, Oregon. NWREL designed Teacher Evaluation Profiles to allow districts to diagnose the potential of their evaluation processes to contribute to the professional growth of beginning and experienced teachers. NWREL based the Profiles on a set of carefully researched "keys to teacher development." The original research included a case study of 35 veteran and beginning teachers identified as having experienced highly productive training. Examples of keys to productive development are good knowledge of alternative teaching approaches, high expectations of self, flexibility, and openness to change. From that study and from subsequent investigation, NWREL designed questionnaires districts give teachers for analyzing, from teachers' perspectives, the strengths and weaknesses of staff development and in-service provided by the districts.[17]

To date, approximately 25 districts in Oregon have contracted with NWREL to receive training in the development and use of Teacher Evaluation Profiles. For example, in the Greshom School District, NWREL organized six sessions over one year in which teachers and administrators met to examine the characteristics of good teaching and good teacher evaluation. The goal is to improve in-service and staff development. According to the district's administrator of the program, the results have been positive in terms of building trust between teachers and administrators regarding evaluations. NWREL charged about $5,000 to train teachers and staff in a district.[18]

2. **Lead Teacher Evaluation**. *Lead Teacher Panels would evaluate Lead Teachers and provide feedback. A negative evaluation could result in a Lead Teacher being reassigned as a Teacher.*

Under the system proposed here, the Lead Teacher would play a critical role as guide, supervisor, and planner. Recommendation 5A presented the details of a process for evaluating Lead Teachers. In summary, the nomination of each Lead Teacher would be reviewed by a three-member panel composed of Teachers selected by their peers. One panelist on this Lead Teacher Panel would be a teacher from the appointee's school; one would be a Teacher from the same district; one would be from outside the nominee's district (in one-school districts, two would be from outside). The School Coordinating Council would receive input from the Panel and could then act to appoint the Lead Teacher to serve for one year in an acting capacity. At the end of that period, the Acting Lead Teacher would be evaluated by the Panel and the school principal and they would make a recommendation to the School Coordinating Council. With council approval, the Lead Teacher would serve an additional three-year appointment, renewable every three years following a Panel and principal evaluation.

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[17] Interview with Richard Stiggins, Director, Center for Performance Assessment, Northwest Regional Education Laboratory, Portland, Oregon, February 18, 1988.

[18] Interview with Dr. Ann-Marie Collins, Administrator, Greshom School District, Greshom, Oregon, February 19, 1988.

3. **Credential Renewal.** *Teachers would be required to renew their credentials by taking appropriate substantive sections of the Professional Teacher Examination every seven years. Teachers would have one year in which to pass the re-examination, after which their credential would be suspended until they had passed.*

Teachers (and Lead Teachers) would be required to renew their credentials by taking appropriate substantive sections of the Professional Teacher Examination every seven years. They would be re-examined in subjects in which they are credentialed to insure that they had not lost touch with the essential knowledge needed for teaching, and, in some areas, that they had remained current with recent developments in their fields. Teachers would have one year in which to pass the re-examination. If they did not pass, their credentials would be suspended until they had. Teachers would be permitted to take the test again as often as they wished for a period of one year without penalty.

The state's credentialing agency would decide the subjects which would be re-tested. For example, if English is not re-tested, a teacher with a single subject credential to teach English need not retake any part of the professional exam.

Teachers who do not meet re-evaluation standards or who do not pass applicable professional exams within one year would lose their credentials. Lead Teachers could be reclassified as Teachers as a result of poor evaluation results. However, a Teacher or Lead Teacher who fails the professional exam in an applicable subject would be able to continue teaching other subjects in which passing scores were achieved or in which exams are not applicable, pending a successful evaluation.

When these procedures are installed, the current renewable credentialing system would be phased-out. In addition, new salary increments for staff development work would be eliminated. Unlike the current system, credential renewal in the proposed procedures would focus on actual teacher knowledge rather than evidence of course attendance, and the public would have more assurance that all teachers keep up to date. Entrusting a teacher-majority agency such as the California Teaching Standards and Credentialing Board with responsibility for removing the right of an incompetent individual to teach would prevent the transfer of incompetence between districts and reduce local "politicization" of dismissals.

Three states -- Arkansas, Georgia, and Texas -- require testing for recertification. Georgia, in particular, uses a set of 28 subject-matter exams to assess teacher competence, using specific performance-based objectives developed by educators. All teachers in Georgia certified since 1978, and those whose certificates expired after July 1986, must pass appropriate exams.

RECOMMENDATION 6

CAPITALIZE ON DIVERSITY

> *In an increasingly interdependent world, foreign language study must be a vital part of the core of common learning. We recommend that students become familiar with the language of another culture ... While there is no right time to learn a language, research, experience, and common sense suggest that language study begin early — by the fourth grade and preferably before — and it should be sustained.*
>
> Ernest Boyer, High School

California has a difficult challenge in the language area -- and, at the same time, has a great opportunity.

High Percentage of Non-English Speaking Children

The challenge concerns the high percentage of students, particularly entering students, whose family language is not English. About twenty-five percent of California students have limited ability to speak, comprehend, or write in English. They need to learn English as quickly as possible so that they can succeed as students and working adults. Under the present system, however, such children are quite likely to fall behind, and are at great risk of dropping out and having limited employment opportunities.

Diversity Not Exploited

The opportunity concerns the place that California holds now and could hold in the future as a main trading center on the Pacific Rim. The shift to a global economy means that more people will benefit from learning the Pacific languages including Spanish. Moreover, national reports have stressed the need for citizens to learn foreign languages early as an important step in understanding the emerging 21st Century environment. With its rich diversity of people, California could draw on its resources to lead the nation in the development of language skills for all students.

Teacher Shortage Barrier to Goals of the Future

The shortage of trained teachers is one main barrier to coping with the challenge of limited English speaking children and realizing the opportunity of training in foreign languages for English speaking students. Shortages of teachers also are likely to occur in non-language areas, such as math and science. Moreover, teachers from some ethnic minorities are under-represented in the present system; the education system of the future should more closely represent the diversity of the student population.

This chapter makes the following recommendations in response to these challenges and opportunities:

> *California should establish policies for assuring that non-English speaking students fully acquire English, and that English speakers learn a second language beginning in early childhood. A critical teachers shortage policy should also be established to meet California's growing need for quality teachers from various ethnic groups.*

6A: Build school capacity to provide English language acquisition.

6B: Assure foreign language proficiency for all children

6C: Establish critical and minority teacher shortages programs.

6A: BUILD SCHOOL CAPACITY TO PROVIDE ENGLISH LANGUAGE ACQUISITION

The state should support policies that begin English language acquisition at age four, that upgrade the assessment of limited English proficient students, and that increase the supply and productivity of bilingual instructors.

1. **Early Language Development.** Following guidelines developed by the state, providers of primary schooling would be required to begin language development activities for all four-year-olds whose primary language is other than English. Language development would be conducted in the student's native language and English, and would use developmentally appropriate activities.

2. **Strengthen Assessment.** In all grades, students would receive language support until they attained proficiency as measured by upgraded language assessment instruments. The new, state-approved instruments would test students' ability to speak English fluently and to comprehend and write in academic subjects. Districts would be required to assess the English proficiency of children upon their entry into schooling, and upon their transition to and exit from an English language development program.

3. **Expand Instructor Pool.** By a specified year, districts would be required to use appropriately qualified instructors to provide English language development and/or instruction in students' primary language. Procedures would be devised to credential or certify a wide range of qualified instructors serving different roles. In addition to Bilingual Teachers and Aides, there would be Language Development Specialists, Assistant Teachers with AA degrees from community colleges, and qualified private contractors.

4. **Training.** Institutes for School Development would train teachers and administrators in effective models for English language acquisition, academic support in a primary language, and means to sustain fluency in a native language. Models would include the application of technology, and the use of Teachers and Language Development Specialists working in teams with native-language speaking Assistant Teachers and Aides.

A. The Need

California faces a difficult challenge and a great opportunity in the area of language. The challenge is the large and growing number of children whose primary language is other than English. Currently, twenty-nine percent of the 4.2 million public school children in California have a primary language other than English.

Language minority students are divided into two groups based on their English language fluency: Limited English Proficient students or Fluent English Proficient students. Limited

English Proficient students (LEP) are those with a primary language other than English who require additional instruction in English in order to participate in school. Students who are categorized as Fluent English Proficient (FEP) have been formerly classified as Limited English Proficient but have gained sufficient English language skills from special programs (such as bilingual education or English as a Second Language) to participate in English-only instruction.

Demography

For some California school districts, the challenge of educating a growing number of diverse children whose primary language is other than English dominates the education agenda. Statewide, the number of language minority students is steadily growing and a shift in the composition of languages spoken by non-native English speakers is occurring. The number of LEP students is expected to increase 5-7 percent annually in California between 1987 and 1992 compared to an annual growth rate of 3 percent for all school children (California Legislative Analyst, 1986). Since 1980 the relative mix of language groups represented in the school population has shifted towards a higher proportion of Asian languages. In 1980, the percent of LEP pupils whose primary language was Spanish was 78.9 percent. In 1985, that proportion had dropped to 72.5 percent.

Students whose primary language is other than English are concentrated in the lower grades. Two-thirds of the students classified as Limited English Proficient statewide are in elementary grades K-6; 48 percent of all LEP students are enrolled in grades K-3. While Limited English Proficient pupils are found in 57 of the 58 California counties, 72 percent of LEP students attend school in one of six California counties: Los Angeles, Orange, San Diego, Santa Clara, San Francisco or Alameda. Forty-seven percent of all LEP students statewide are enrolled in Los Angeles county schools.

> Sixty-one percent of all LEP students reside in a three county region composed of Los Angeles, Orange and San Diego counties. The pupils in these three Southern California counties account for 16 percent of the total public school enrollment. The Northern California region most heavily impacted is composed of Santa Clara, San Francisco and Alameda counties. These three Northern California counties account for 11.4 percent of all LEP pupils and 12.3 percent of the state's total school enrollment. While most counties enroll some LEP pupils, none are as critically impacted as these six. (Legislative Analyst, 1986, p. 36)

Language Programs in California

School districts are required by a federal Supreme Court decision (Lau v. Nichols) to provide Limited English Proficient Students with equal educational opportunity for access to the core curriculum. California added state legal requirements to the federal standards in the mid-1970's. The state laws governing language programs for Limited English Proficient students were allowed to expire on June 30, 1987. School programs for Limited English Proficient students operated under the recently sunsetted state law ranged from bilingual, bicultural education to English as a Second Language classes.

At the time of the expiration of state law, one sixth of eligible LEP students were in bilingual classes taught by a fully qualified bilingual teacher. While one third of all Limited English Proficient students were in bilingual classes, only one half of those students were taught by a fully credentialed bilingual teacher. The remaining students in bilingual classes were taught by teachers under waiver. One-half of all Limited English Proficient students (75 percent of secondary LEP pupils) were in Individual Learning Plans which consisted of a class or two in English as a Second Language, and academic subjects taught in English, supplemented by services from an aide fluent in the student's primary language.

All Limited English Proficient students exit bilingual programs when they attain Fluent English Proficient status, which for most students occurs between two and one-half and three and one-half years after entry into language programs. For the child entering school in kindergarten, Fluent English Proficient status was achieved typically by the third grade.

Teacher Shortage

The most serious barrier to implementing language programs for Limited English Proficient students in California has been the persistent shortage of qualified teachers skilled in second language acquisition methods, fluent in the students' primary language, and knowledgeable about the students' cultural background.

Under previous state law, elementary level bilingual program options, except for Individual Learning Plans, required teachers with a state bilingual cross-cultural teaching credential. At the secondary level, the law required that Language Development programs had to be taught by credentialed bilingual teachers or credentialed Language Development Specialists. In addition, districts using state categorical funds for LEP students were mandated to use credentialed, bilingual teachers to "oversee" Individual Learning Plans. State mandates requiring the use of credentialed bilingual teachers expired with the state bilingual law on June 30, 1987.

In sheer numbers, the shortage of Spanish bilingual teachers has been the most severe. In grades K-6, the state estimated that 10,967 Spanish bilingual teachers were needed in the spring of 1985. Only 5,569 credentialed bilingual teachers were available, or 51 percent. In relative terms, bilingual teachers in Asian languages are in very short supply. California has 2 percent of the Laotian teachers, 6 percent of Vietnamese teachers and 62 percent of Cantonese teachers it needs. As of 1985, there were no credentialed Hmong or Cambodian bilingual teachers (Legislative Analyst, 1986).

Previous state law allowed districts to use teachers lacking special credentials for bilingual programs on a waiver basis. The two year renewable waivers were allowed for teachers enrolled in bilingual credential programs and language study programs. When waivered teachers are considered, the current teacher shortage (K-6) drops from a total statewide of 5,997 to 923 teachers (Legislative Analyst, 1986).

The shortage of bilingual teachers is projected to become more severe in the coming decades as the numbers of identified Limited English Proficient pupils increases and the overall teacher shortage becomes more acute. The Assembly Office of Research estimates that by 1990, if current service levels were to be maintained in language assistance programs, the demand for bilingual teachers will be 22,947 and the supply will be 12,000. By the year 2000, the AOR estimates the demand for bilingual teachers at 28,412 and the supply at 16,600 (Assembly Office of Research, 1986)

The shortage of curriculum materials is a second barrier that has plagued language assistance programs. Nationwide, and in California, school districts complain about lack of material for the many diverse languages and the lack of curriculum materials in Spanish at the secondary level.

Weaknesses in Current Language Programs

In addition to the chronic shortage of qualified instructors, several weaknesses in California's language assistance programs operated under the now-expired state law undermined their effectiveness in successfully educating Limited English Proficient students. First, the programs were too short in duration. As implemented, California language programs force children and parents to choose between learning English rapidly and succeeding in school. It takes three to seven years to learn the academic English needed for success in school, yet 70-80 percent of LEP students exited language assistance programs after two and one half to three and one half years (Assembly Office of Research, 1986). Once reclassified as Fluent English Proficient, these students receive no additional special language instruction. Some of the pressure to reclassify LEP students to FEP status comes from the students themselves -- especially secondary school students (Olsen, 1988). Students exited from language programs with oral fluency in English but lacking in comprehension and writing skills will not reach their full academic potential in school due to inadequate language development.

In addition to the too-rapid movement of students out of language programs, there are serious shortcomings in the quality of language assistance programs provided to students in California. The widespread practice of providing ESL without sufficient academic support in the primary language in California runs counter to what is known about acquisition of a second language. Only one quarter of eligible Limited English Proficient students in elementary schools were in bilingual programs with fully qualified bilingual teachers. The remaining students are in bilingual programs staffed by teachers on "waiver" or in Individual Learning Plans. California Tomorrow found that Individual Learning Plans for immigrant students consisted of, on the average, one hour per week of contact with an aide fluent in the primary language of the student, along with several classes in ESL daily (Olsen, 1988).

A landmark study, based on a review of worldwide experience, done by the World Bank, found that:

> . . . if one or more of the following conditions existed, second language instruction could be recommended (ESL-type instruction):
> l) The child's native language is well developed, 2) The parents freely choose instruction in the second language, or 3) The native language enjoys high status in the community.
> The use of a native language is more appropriate when one or more of the following conditions apply:
> l) The child's native language skills are not well developed, 2) The parents want native language instruction, or 3) The native language has low status in the community[1]

Rapid language assistance programs which end services to children once they attain superficial oral English fluency and which fail to support their achievement in academic subjects through the primary language usually result in children failing to attain either proficiency in academic English or mastery of academic subjects. These children are then unable to master more complex subjects in the upper grades, which require comprehension and critical thinking skills.

The Opportunity

Limited English Proficient students come to California schools with language backgrounds that enhance California's commercial success on the Pacific Rim. The opportunity they bring by infusing linguistic diversity into the California school population should be nurtured throughout students' school careers and contribute to their productive employment as adults. To take advantage of this opportunity, California should support policies that begin English language acquisition programs at age four, that upgrade the assessment of Limited English Proficient students, and that increase the supply and productivity of bilingual instructors. These proposals address practical problems in educating Limited English Proficient students in California.

B. Explanation of Recommendation 6A

1. **Early Language Development.** *Following guidelines developed by the state, providers of primary schooling would be required to begin language development activities for all four-year-olds whose primary language is other than English. Language development would be conducted in the student's native language and English, and would use developmentally appropriate activities.*

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[1] As quoted in United States General Accounting Office, 1987, pp. 23-24.

The earlier recommendation on preschool (see Recommendation 1A) proposes that all children of age four be given the opportunity to attend preschool in schooling units called primary schools. In addition to four-year-olds, these primary schools would have children of ages five and six, and the education would consist of hands-on, concrete activities appropriate to each child's development. Thus, children would not be grouped according to their chronological age. The state would award contracts to public schools or private providers and use contract stipulations and monitoring techniques to insure that the above design specifications were implemented. Moreover, the providers of primary school would be required to treat language development of children in the following way.

Children whose primary language is other than English would start in a language development program in the primary unit at age four. School activities would convey respect for the value of the primary language and the culture of the child. Natural language development would be fostered through social interaction meaningful to the child. The choice of language of instruction for any particular child or program would be based upon the language skills of the child in English versus their primary language. The principal goal of this choice would be to foster conceptual development, cognitive development, and language development in a manner which builds self-esteem in the linguistic minority child. Instruction would be offered in a manner which clearly differentiates between instructional time in the primary language and instructional time in English. Young children would form English language relationships with instructors in the primary unit, and primary language relationships with other instructors in the primary unit. These methods are highly recommended for young children as opposed to practices such as simultaneous translation, mixing two languages, or rigidly structured formal language programs (California State Advisory Committee on Child Development, 1985; Willig, 1985).

The goal of language development in the primary unit for children ages four to six would be to build what experts call "common language proficiencies" which serve as the underpinning of all language skills in both English and the primary language (California State Department of Education, Bilingual Education Office, 1983). Children who develop common language proficiencies in the primary language can be expected to achieve at higher levels than their peers who have not received this preparation in immersion programs or bilingual programs in elementary school (California State Department of Education, Bilingual Education Office, 1983).

In addition, the state contract would require providers to specify which concrete steps they would take to make parents active partners in their child's language development program in preschool. Parent education would be an important feature of the primary unit as described in Recommendation 1A.

The primary unit proposed in this report would be an ungraded program for children ages four through six. The ungraded feature of this program makes it possible to transition Limited English Proficient students to an elementary school curriculum of English language development when they have achieved important common language proficiencies.

2. Strengthen Assessment. *In primary, elementary, and secondary grades, students would receive language support until they attain proficiency as measured by upgraded language assessment instruments.*

The state would develop and approve comprehensive assessment instruments which would test students' ability to speak English fluently and to comprehend and write in academic subjects. Districts would be required to assess the English proficiency of children upon their entry into schooling, transition into an English language development program, and exit from the program.

The state would recommend assessment scores that would indicate whether a student was ready to make a transition to English-only instruction. Teachers would be expected to use non-test measures to supplement the state measures, and recommend appropriate programs for students. Results of the assessments of Limited English Proficient students at entry and exit from language programs would be reported on a school, district, and statewide basis (see Recommendation 2B).

Non-native English speaking children often learn to speak informal English before they master the language well enough to comprehend and work in formal academic subjects. Since assessments of English speaking ability often do not sufficiently test for formal academic comprehension, some limited English speaking children are prematurely considered equipped to receive English-only instruction in academic subjects. Upgraded assessments will enable students to be fully prepared when they take academic subjects in English, and therefore prevent these pupils from falling behind, under-achieving, and eventually dropping out.

Careful assessment is essential for a sound state language policy. Under this proposal, students who enter the primary unit at age four would be assessed three times: upon entry at age four to determine their English and primary language fluency, upon exit from the primary unit to test for the common language proficiencies judged to be critical for success, and a test for exiting from the language assistance program into English-only instruction in elementary school.

The initial tests for children entering at four years of age represent a minor modification of the existing practice of using state-approved instruments for kindergarten LEP students. Children should be assessed upon entry into the primary unit rather than the current practice of waiting until kindergarten to assess LEP students. State contract specifications would provide guidance to providers on the common language proficiencies desired for students in the primary unit and alternative means of assessing those proficiencies.

When they attain specific common language proficiencies, children would transition into an elementary school curriculum of English language development with support in the primary language. Students would exit the elementary school English language development curriculum when they achieve a satisfactory level of English oral fluency, comprehension, and writing skills and can achieve academically at a level comparable to their English-only peers.

To facilitate the assessment procedures, the state would require that providers use state-approved tests to measure English competencies in verbal comprehension and production, and written comprehension and production. The state would recommend appropriate scores that would indicate whether a student was ready to make a transition to English-only instruction.

Testing provides benchmarks for accountability for language programs. Results of the assessments of Limited English Proficient students at entry and exit from language programs would be reported on a school, district, and statewide basis. These results would be useful to parents, educators, and elected officials to assess the success of California language programs.

3. **Expand Instructor Pool.** *By a specified year, districts would be required to use appropriately qualified instructors to provide English language development and/or instruction in students' primary language.*

State credentialing procedures would be revised so that a wide range of qualified instructors serving different roles could be credentialed or certified. In addition to Bilingual Teachers and Aides, there would be Language Development Specialists, Assistant Teachers with AA degrees from community colleges, and qualified private contractors.

Language programs, such as bilingual education or immersion, would be implemented (where appropriate) by teams of instructors made up of Bilingual Teachers, Language Development Specialists, Assistant Teachers, and Aides. Bilingual waiver teachers would be eligible to be granted temporary Language Development Specialist certificates.

Credentialed teachers who are fluent in a primary language spoken by language minority students could obtain special training in methods of second language acquisition in order to become Language Development Specialists or Bilingual Teachers. Schools would have the authority to contract for foreign language instructors to support the academic skills in the primary language of students (see Recommendation 3A).

The state would establish grant programs for the use of technology directed toward language acquisition (see Recommendation 4B). The state would provide scholarships and loans to increase the pool of qualified instructors (see Recommendation 6C).

The above recommendation proposes that districts be required to use appropriately qualified instructors to provide English language development and instruction in students' primary language. A state requirement to this effect could not be enforced immediately because of severe teacher shortages, but the proposals discussed below would enable California schools to pursue strategies that would expand the instructor pool and enable this requirement to be set as a goal that could be realized within about five years.

The most serious obstacle to overcoming language barriers that prevents all students from performing at high levels is the shortage of qualified teachers skilled in the primary languages of the students and methods of second language acquisition. The projected shortage of teachers is 11,000 in 1990 and 12,600 teachers by the turn of the century.[2] This proposal recommends the following strategies for expanding the pool of teachers based on differentiating the roles of instructors who would have different qualifications.

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[2] This demand forecast by the Assembly Office of Research preceded the sunset of the bilingual education law and assumed continuation of the bilingual teacher mandate in grades K-6. Under the California bilingual law which sunsetted on June 30, 1987, whenever there were 10 or more students of the same primary language other than English at the same grade level in grades K-6, the district must provide a bilingual program taught by a qualified bilingual instructor.

Specifically, this report proposes that language programs, such as bilingual education or immersion, be implemented (where appropriate) by teams of instructors made up of Bilingual Teachers, Language Development Specialists, Assistant Teachers and Aides (see Recommendations 3C and 5A for a discussion of the team approach). Bilingual Teachers would be fluent in a primary language, skilled in methods of second language acquisition, and knowledgeable about the culture of language minority children enrolled in language programs. Language Development Specialists would be knowledgeable about methods of second language acquisition and the culture of linguistic minority students in language programs. State law would not require Language Development Specialists to be fluent in the students' primary language. Assistant Teachers, a new role proposed in this report, would be certified by the state and be hired by schools. When used on a team for instruction of language minority students, they might have an Associate of Arts degree from a Community College and be fluent in the primary language of students.

This expanded variety of instructors used in a team approach would make it possible to overcome the severe current and projected shortage of appropriately qualified instructors in language areas. First, Assistant Teachers fluent in the primary language of the students could be used to instruct in the primary unit and provide primary language support in the elementary and secondary programs. There are 18,000 bilingual aides in California as well as large numbers of Asian and Hispanic 18 and 19 year olds with some level of skill in their primary language. With an Associate of Arts degree obtained from a community college and training in specialized state-funded institutes, a percentage of these individuals could be placed into the schools within two to four years to provide critically needed primary language instruction (see Recommendation 6C on a critical teacher shortage program and Recommendation 4A on staff development at Institutes for School Development).

Second, the current 8,000 bilingual teachers on waiver (who lack either primary language skills or some credential requirement in order to be fully certified bilingual instructors) could be certified, with some additional training where needed, as Language Development Specialists. Some members of this pool of individuals could teach in English immersion programs with the assistance of a native language speaking Assistant Teacher. The Institutes for School Development could provide the needed training. The Department of Education has proposed that bilingual waiver teachers be granted temporary Language Development Specialist certificates.

Third, credentialed teachers who are fluent in a primary language spoken by language minority students could obtain special training in methods of second language acquisition in order to become Language Development Specialists or Bilingual Teachers. Incentives for teachers to obtain the training, including stipends for summer study, should be provided by the state (see Recommendation 6C).

Fourth, the demand for bilingual teachers could be reduced through a modification of the prior law's bilingual program structure. In conjunction with the effective utilization of the team teaching approach, this could result in a more productive use of the present cadre of certified bilingual teachers.

For example, the Eastman Project is used in eight Los Angeles Unified School District schools with Spanish speaking children. Twenty additional Los Angeles schools are currently planning to implement the Eastman Project. Project schools are organized by language and grade for core instruction and departmentally for some curricular areas, with teachers specializing in particular subject areas, such as art, physical education, etc. The core curriculum of social studies, language arts, science and math is taught in Spanish for Spanish speaking children by qualified bilingual teachers and in English for English speaking children by English-speaking teachers. Spanish speaking and English speaking children are mixed and receive instruction in subjects other than the core curriculum (art, physical education, etc.) in English without translation. Spanish-speaking students gradually make the transition from primary language instruction to sheltered English to mainstream English in academic subjects as their English proficiency increases. For students who enter in kindergarten, the length of time required to complete the transition to full English-language acquisition is usually five years.

By design, the Eastman Project clearly differentiates between instruction in English and instruction in the primary language while significantly increasing the number of students taught in a bilingual program with a given number of fully qualified bilingual instructors. Economy in the use of bilingual instructors is achieved by not requiring one-third of the bilingual program participants to be English speaking (which was required under the sunsetted law). Bilingual teachers instruct only Limited English Proficient students, rather than teach a class composed of one-third English speaking children. In the Eastman School, which pioneered the program in 1981, bilingual teacher demand was reduced 37.5 percent through the restructured bilingual program. This report recommends that some Institutes of School Development (see Recommendation 4A and the next subsection) focus on language development issues and, in particular, help develop and offer training in productive team teaching approaches to language acquisition.

Fifth, schools should have the authority to contract for foreign language instructors to support the development of academic skills in the primary language of students (see Recommendation 3A). California could utilize resources in the private sector to allow students to take courses outside the public schools in a language academy and count the courses toward graduation or to contract for specific courses to be taught at the school site by private language instruction providers.

Finally, this report recommends that some grant programs for the use of technology be directed toward language acquisition. The current state of educational technology suggests that technology holds great promise for helping to provide primary language support and enhance English language development for Limited English Proficient students. The give and take with a language instructor is irreplaceable in assisting students to learn a new language but technology can support instruction offered by a teacher, particularly in rote learning tasks and in interactive video application where students working at their own pace can learn visual clues about language and culture.

In the short run, the gap between the demand for qualified language teachers and the supply can be narrowed significantly. Numerous proposals have been put forward at the state level in the last several years to address this issue -- by the Assembly Office of Research and the State

Department of Education. Those and other ideas put forward here can be implemented in the short term while the longer term strategy of new teacher training is being implemented. In the interim, this report proposes that California should establish in law the principle that children who speak a primary language other than English will be placed in a language program taught by an appropriately qualified instructor.

4. **Training.** *Institutes for School Development would provide development and training of teachers and administrators in effective models for English language acquisition, as well as academic support in primary language and means to sustain fluency in the native language.*

SDE would designate several of the Institutes for School Development (see Recommendation 4A) to specialize in the full range of langauge development and acquisition issues. The Institutes would be expected to develop practical models for and train teachers and administrators in language development and acquisition, including (a) the application of technology and (b) the efficient use of Teachers and Language Development Specialists working in teams with native-language speaking Assistant Teachers and Aides.

The challenge presented to California schools by large numbers of children speaking diverse languages can be met by building schools' capacity to provide English language acquisition. Part of capacity-building is an adequate supply of trained instructors. Another essential feature is training for teachers and administrators in effective models for bilingual education, immersion programs, and other language assistance programs.

Meeting the challenge of linguistic diversity will be a significant part of the agenda for the Institutes for School Development (see Recommendation 4A). This report recommends that several of the Institutes be identified as specializing in the full range of language development and acquisition issues. Given the diversity in age, cultural background, and school experience of California's LEP students, research, development, and state leadership are needed to extend effective programming to schools statewide. Institutes would provide a network for sharing innovation in language programs, including the use of technology.

6B: ASSURE FOREIGN LANGUAGE PROFICIENCY FOR ALL CHILDREN

California should implement policies that insure that all children learn at least one foreign language.

1. **Goals.** The state goal would be fluency in at least one foreign language for all students entering college by 1995; fluency for all new K-12 teachers by 1997; and fluency for all common high school graduates by 2000.

2. **Early Language Training.** Exposure to a foreign language would begin in primary schools with 4-year-olds, and systematic instruction in foreign languages would begin no later than 5th grade for all children.

3. **Testing.** Proficiency in a second language would be tested at the time a student leaves elementary school at grade 6, and upon exit from the common high school at grade 10.

4. **Teacher Supply.** The state would develop plans to identify and recruit foreign language teachers in sufficient numbers to meet these goals (see Recommendation 6C).

A. The Need

California competes in a world economy with increasing emphasis on new markets on the Pacific Rim. To achieve the state's full potential as a trading partner, representatives of California businesses will need to know the culture and customs of the countries they are trading with, as well as attain fluency in the languages of the Pacific Rim. This proposal sets goals so that California could establish foreign language training -- and maintenance -- as a high priority.

Economists feel that an inadequate supply of employees who are fluent in foreign languages has been a factor in our current trade imbalance (California Department of Education, Language Unit, "Point of View Statement for Modern Foreign Language Instruction"). Absent major change, California public schools will not produce individuals fluent in Pacific Rim languages in the coming decades. Statewide, fewer than 4,000 students, less than one tenth of one percent, were enrolled in non-Western European language classes in 1986-87.

More generally speaking, California students receive too little foreign language instruction too late in their school careers to achieve competency in a second language. In order to graduate, students now must pass one year of a foreign language as an alternative to a fine art. UC and CSU require two years of a foreign language for entering freshmen. Generally, foreign language instruction is not available to students until high school, though experts agree this is a poor time for children to begin to learn a second language (Boyer, 1983). In 1986-87 only 44,851 students were enrolled in foreign language classes in elementary or intermediate schools (grades K-8) – 1.5 percent of the K-8 total enrollment. The brief one- or two-year exposure to a foreign language that most schoolchildren receive is far too short a time to attain communication fluency in a second language. Experts agree that communication fluency takes between four to six years to achieve (National Commission on Excellence in Education, 1983).

B. Explanation of Recommendation

1. **Foreign Language Goals.** *The state goal would be fluency in at least one foreign language for all students entering UC or CSU by 1995; fluency for all new K-12 teachers by 1997; and fluency for high school graduates by 2000. By 1995, UC and CSU would use statewide exit tests or other appropriate examinations to establish an entry requirement of fluency in at least one foreign language.*

By 1997, all new teacher candidates would have to pass the foreign language fluency section of the proposed California Professional Teachers Exam (see recommendation 5B). By 2000, the state would establish an expectation that foreign language training would be part of the core competencies for all students.

This proposal calls for a set of state goals to be established so that the school system and institutions of higher education can review their programs and establish foreign language training as a priority. The first goal, fluency in at least one foreign language for all students entering UC or CSU by 1995, would require, in effect, that UC and CSU upgrade their current entry standards. Instead of the present requirement of two years of satisfactory course work, this report recommends that UC and CSU use the results of statewide exit tests proposed in Recommendation 2A (also see discussion below) or equivalent tests. This approach would be consistent with this report's emphasis on measures of student performance rather than on courses taken.

In referring to "fluency", this report suggests that communication skills should be stressed more than formal grammatic structure. Communication fluency in Spanish and in Asian languages would be encouraged as part of an effort to provide California students with the skills they need in an international job market.

The second goal would be that, by 1997, all new elementary and secondary teachers be required to demonstrate fluency in a second language before receiving a teaching credential. Recommendation 5B calls for a change in teacher certification from the present system of certifying a candidate's educational program to a professional assessment system, including state teacher tests in subject matter areas. This proposal recommends that one of the areas tested be a foreign language. Aside from teachers specifically trained to provide instruction for limited English proficient students, California's rich diversity of students means that most teachers will be faced with many opportunities to apply their language training in informal ways with parents and students. Moreover, new teachers should be expected to have a requirement for foreign language fluency at least equivalent to that established for students. The specification that this goal be put in place by 1997 is made to allow current high school (or college) students adequate time to set their priorities if they envision teaching as career.

The third goal is to have all high school graduates achieve fluency in a foreign language by 2000. This reports recommends this as a goal, not an absolute statewide requirement. We recognize that the great variety of communities and types of students across California makes it hard to establish a performance-based foreign language goal for all students. The essence of many reforms proposed here is to localize decisionmaking so that schools, communities and parents can decide what is best for them within the larger context of statewide expectations for all students. Consistent with this philosophy, this report proposes that the state incorporate testing of foreign language competence on the statewide end-of-course and exit tests (see Recommendation 2A and discussion below) but phase out any foreign language course requirement.

California would not be alone in taking steps to upgrade language training. In the United States, there is a new awareness of the need for increased emphasis on foreign language instruction for all children and especially those below the high school level. Thirty states have imposed or restored some form of language requirement since the early 1980s (Rohter, 1987). North Carolina requires districts to offer foreign languages in all grade levels, including kindergarten. Since 1985, Louisiana has required 30 minutes of daily foreign language instruction beginning in the fourth grade.

2. **Early Language Training.** *Exposure to a foreign language would begin in primary schools with 4-year-olds, and systematic instruction in foreign languages would begin no later than 5th grade for all children.*

Educators agree that early language training would greatly facilitate the acquisition of a foreign language. For example, the Carnegie study, High School, urged earlier instruction in foreign languages for all students: "The study of a second language should begin long before students come to high school. ... language study should begin early -- by the fourth grade and preferably before -- and it should be sustained" (Boyer, 1983, p. 100).

California's commercial competitors in Europe and the Far East begin instruction in a foreign language in elementary school. In Germany, children begin foreign language instruction in fifth grade; in Japan, in sixth grade. The consequence of this imbalance is that in international trade negotiations most California business leaders know less about Japanese culture and language than Japanese counterparts know about the English language and American customs.

This report recommends that exposure to a foreign language should begin in the primary school beginning at age four (see Recommendation 1A). Providers of primary schooling would be required to have students exposed to native language speakers, and learn the language through natural language development in meaningful social interaction. Exposure to the culture and values of the foreign language speakers also would be an important part of this early exposure to a new language. Communication skills would be stressed as opposed to learning the grammatical structure of the language. Children could be exposed to a variety of languages during this period so that they could effectively choose a language to study later in their school careers.

Schools would be encouraged by the state expectations for core competencies (see Recommendations 1B and 2A) to provide, by no later than grade five, a sequence of language instruction to develop oral and written communication skills in a second language. Specifically designated Institutes for School for Development (see Recommendations 4A and 6A) would help train teachers to use classroom activities that would include realistic communication tasks involving listening, speaking, reading, and writing. Besides the common Western European languages of Spanish, French, and German, Pacific Rim languages would be encouraged, including Japanese, Mandarin, Cantonese, and Korean.

The Institutes for School Development would help develop and disseminate models of immersion programs, in which children are taught academic subjects through the second language. Research suggests that immersion programs can successfully teach students fluency in a second language and academic subjects, without sacrificing communication skills in English (San Diego City Schools, Planning, Research and Evaluation Division, 1987).

From the later elementary grades through secondary school, classes should be available for native speakers of foreign languages to sustain their literacy and fluency in the primary language. These students who bring second language skills to the classroom will be a rich resource for California's future economic competition on the Pacific Rim.

3. **Testing**. *Proficiency in a second language would be tested at the time a student leaves elementary school at grade 6, and upon exit from the common high school at grade 10.*

Statewide exit tests at the end of elementary school at grade 6 and at the end of common high school at grade 10 would measure students' competence in a foreign language as part of the core curriculum. The competencies would be appropriate for the grade level of the student and would stress communication skills as opposed to grammar. Foreign language tests would be developed by the state as part of subject matter state exit tests recommended elsewhere in this report (see Recommendation 2A). The state would not specify a passing score but leave it to local Parent-Community Governing Bodies (see Recommendation 3B) to set passing levels. Honors-level scores could also be set at the school level.

4. **Teacher Supply**. *The state would develop plans to identify and recruit foreign language teachers in sufficient numbers to meet these goals.*

A shortage of foreign language teachers is a serious barrier to offering foreign language instruction in California public schools. In a sense, the problem is cyclical: the lack of foreign language instruction leads to college students and teachers who are not proficient in a second language -- who then are unable to teach a foreign language in school, and the cycle renews itself. In order to break this cycle, California must set long-range and intermediate goals for expanded foreign language instruction, and use special approaches to foreign language instruction during the transition period.

In 1988, California lacks the human resources to mount this large language initiative. During the period of transition to the new system, a variety of means will be needed to bring skilled foreign language teachers into our schools on a large scale. California will need to explore the use of technology for teaching some elements of the language program, for example language videos for helping students understand the culture of the people who speak the language they are studying. Technology can also be used to reinforce what is learned from the teacher through drill and practice. Current technology cannot replace, however, the need for interactive communication which is central to attaining fluency in a language.

A second means of addressing the critical shortage of foreign language teachers would be for schools to contract with private entities to bring teachers into the schools on a part-time basis to teach foreign languages. Some means of assuring quality control would be needed, such as the possession of a certificate earned in a specific state-sanctioned training program for contract teachers. Private language academies are becoming more common in California with the urgent unmet need for English language training and waiting lists for publicly funded adult language programs (Brodsheer, 1988).

Finally, the cadre of child development specialists described in the section on preschool (see Recommendation 1A) provides us with a pool of native language speakers, some of whom may wish to eventually become teachers in the upper grades. These individuals can provide the language enrichment activities envisioned for the primary unit and early elementary grades.

6C: ESTABLISH CRITICAL TEACHER SHORTAGES PROGRAMS

New government and non-government programs should be established to help meet shortages of teachers in critical subject areas, including the recruitment of under-represented minorities.

1. **Designation of Critical Areas.** The Superintendent of Public Instruction would be authorized to designate subjects as Critical Teacher Shortage Areas.

2. **Incentives.** For designated shortage areas, the state would initiate a program that would provide scholarships for qualified college students who make a commitment to teach in the shortage area at least one year for every year they have received a scholarship; and graduate fellowships for candidates with bachelor's degrees in the designated shortage areas who wish to pursue further studies leading to a clear credential.

3. **Early Recruitment.** The state working with the business community would initiate a new Early Identification and Recruitment Program for teachers in critical shortage areas. The program would support a publicity and recruitment campaign designed to interest high school and college students in teaching careers.

4. **Retraining.** The state would reimburse the expenses of teachers wishing to retrain in order to teach in a designated shortage area. To be eligible for state reimbursement, teachers would have to pass the substantive portion of the Professional Teacher Examination (see Recommendation 5B) within three years of beginning their retraining program.

5. **Business Programs.** The business community would develop and promote programs (such as job-sharing, lending specialists to schools as Adjunct Teachers, and early retirement) to help resolve the critical teacher shortage.

A. The Need

A recent study estimated that between 16,000 and 19,000 new teachers would be needed each year from 1988-89 to 1994-95 due to enrollment growth and attrition (Cagampang, et al., 1986).[3] Over this same seven-year period, the study forecast a shortfall of between 5,500 and 10,500 teachers per year. Evidence shows that the primary areas of teacher shortages are math, science, and bilingual education.

Policy Analysis for California Education (1987) reported that in 1985-86 there was a shortage of 821 math teachers, representing 8.0 percent of the 10,249 full-time-equivalent (FTE) teachers in the field. The deficiency of science teachers was even more severe at 8.7 percent (638 out of 7,342 total FTEs).[4] More attractive wages and working conditions in the private sector, especially for individuals trained in math and science, are a major cause of teacher shortages in these areas (Cagampang and Guthrie, 1988).

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[3] These figures assume that pupil/teacher ratios remain constant, that emergency credentials continue to be issued, and that teachers continue to teach outside their fields of expertise.

By far the greatest teacher shortage occurs in bilingual education, which accounted for 44 percent of the total teacher shortage in 1985-86. PACE (1987) estimated the shortage of bilingual teachers at 4,367 out of about 8,300 certified positions. 4,200 of these positions were filled by teachers on waivers.[5] This means that roughly 50 percent (4200/8300) of all bilingual teachers in 1985-86 were on waivers. The total demand for Spanish bilingual teachers was 10,967 in 1985. 42 percent of the demand was met by teachers on waivers, and 8 percent of the demand was unmet. For the next largest limited English proficient group, Vietnamese, only 213 teachers were required, but 93 percent of the demand was met by teachers with waivers (Cagampang, et al., 1986).

Teacher shortages are not limited to math, science, and bilingual education. Schools are renewing their emphasis on English and the humanities. SB 813's high school graduation requirements include a minimum of three years of English. Also, the president of the University of California recently proposed a plan to increase the amount of resources devoted to teaching humanities at U.C. campuses (Harris, 1987). As more students enroll in humanities classes at high schools in response to graduation and college-entrance requirements, schools will need to hire more humanities teachers to meet demand.

With respect to ethnicity, data show that minority teachers are under-represented relative to the proportions of ethnic students in public schools. The following table demonstrates the shortage of minority teachers in California's public schools:

Table 4. Ethnic Composition of California Students and Teachers

Ethnic Group	Percent of Students	Percent of Teachers
Asian	6.9	3.4
Black	9.2	6.2
Filipino	2.0	0.7
Hispanic	29.6	6.7
Native American	0.7	0.9
Pacific Islander	0.6	0.2
White	51.0	82.1

Source: California State Department of Education, California Basic Educational Data System, Racial or Ethnic Distribution of Staff and Students in California Public Schools, 1986-87.

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[4] PACE defines shortage as positions vacant, cancelled, transferred, or filled by emergency credential or waiver.

[5] Waivers allow teachers who agree to learn the language within six years to teach bilingual classes when certified bilingual teachers are not available.

Current Policy

Senate Bill 813 of 1983 established the Assumption Program of Loans for Education (APLE) in order to provide financial incentives for teachers. APLE has been significantly modified since its inception, and its current focus is to attract college students into public school teaching. Basically, the state assumes payment of outstanding loans for junior to fifth-year students currently enrolled in teacher education programs. Prospective teacher must agree to teach in a California K-12 public school, in math, science, or bilingual education, or in a school with a high proportion of economically disadvantaged students. Two thousand dollars worth of loans are assumed for the first year taught in the participant's area of commitment; $3,000 each for the second and third consecutive years taught.

The California Student Aid Commission (CSAC) is authorized to accept up to 500 applications per year and to distribute them pursuant to specific guidelines. Every participating college or university receives at least one award; CSAC grants additional awards according to the proportion of total teaching certificates granted to the school's graduates. Every school must distribute 60 percent of its awards to applicants agreeing to teach in math, science, or bilingual and 40 percent for commitments to low-income schools.

In 1987-88, 66 of 67 California colleges and universities with teacher education programs participated in APLE. In 1986-87, 436 awards were granted. 71 (16.3 percent) were for math, 88 (20.2 percent) were for science, 99 (22.7 percent) were for bilingual education, and 178 (40.8 percent) were for teachers in low-income schools. Also in 1986-87, 71.6 percent of awards went to Whites, 3.2 percent to Blacks, 18.6 percent to Hispanics, and 3 percent to Asians. Legislation says that schools are directed to make "special efforts to notify students of the program, particularly students who are members of populations under-represented in the teaching force." Schools usually work through Educational Opportunity Programs to attract minority and low-income applicants.

Evaluating the program's impact is nearly impossible. It is still too early to ascertain the extent to which participants graduate and go on to fulfill their commitments, because most applicants are still taking coursework. Furthermore, there are no studies of whether the program influences students to go into shortage areas who would not otherwise have done so.

The only other incentive program related to teaching in shortage areas is the Teacher Scholarship Program, but this is a federally funded program. Scholarships are granted to sophomore to fifth-year students in education programs. However, while there is an emphasis on scholarships for students in math, science, or bilingual, students in other areas are also eligible. Implemented in May, 1987, only 26 California students are now on scholarship.

While the programs described above represent efforts on the part of the state to meet the growing demand for teachers, they are clearly insufficient. Participants in the programs number in the hundreds; teacher shortages measure in the tens of thousands. Below are recommended added steps the state should fund in order to tackle the problem more realistically.

B. Explanation of Recommendation

Over the next decade, about 150,000 new teachers will have to enter California K-12 education to keep pace with enrollment growth and replace teachers leaving for retirement or other reasons. The implementation of several recommendations made earlier would ease the general problem of teacher shortages:

- Higher wage scale for all teachers and greater opportunities for advancement;
- Improved working conditions as a result of teacher teams, assistant teachers, supervised apprenticeships, greater use of technology, reduced pupil/adult ratios, and the empowerment of teachers;
- Provision of an alternative route to certification for experts in non-teaching fields related to the applications of math and science, among others.

The sum total of these reforms should help to solve the root economic problem underlying teacher shortages: that highly-qualified math and science graduates find other occupations higher paying and generally more attractive than teaching. However, such reforms are not targeted to particular curricular areas where shortages presently exist and are likely to worsen. Mathematics, science, and bilingual instruction are currently the most critical areas. This proposal offers steps to strengthen current efforts to prevent severe long-run problems by using a series of specific incentives to attract teachers to specially designated critical shortage areas.

1. **Designation of Critical Areas.** *The Superintendent of Public Instruction would be authorized to designate subjects as Critical Teacher Shortage Areas.*

Based on evidence cited at the beginning of this section, these designations would most likely emphasize math, science, and bilingual education. In addition, there is evidence that teacher shortages may occur in the humanities in the near future. The Superintendent would have the discretion to adjust the list of designated subjects to reflect changes in the demography of the students and the teaching workforce.

2. **Incentives.** *For designated shortage areas, the state would initiate a program that would provide scholarships for qualified college students, who make a commitment to teach in the shortage area at least one year for every year they have received a scholarship; and graduate fellowships for candidates with bachelor's degrees in the designated shortage areas who wish to pursue further studies leading to a clear credential.*

In order to make a significant impact, the state should offer large numbers of scholarships and fellowships, and the awards should be sizable; teacher education programs thus need the resources not only to match, but also to out-perform the competition. Therefore, we recommend that this program be funded to provide initially a minimum of 500 undergraduate scholarships per year of up to $5,000 per student plus 500 graduate fellowships per year of $2,500 per student. (See companion Appendix detailing the costs of the proposals.)

One advantage of scholarships and fellowships is that they give incentives for students to complete education programs. Moreover, grants and scholarships probably have a greater relative impact than loans for attracting individuals to an area of study, because there is an immediate benefit to the recipient.

New York State has undergraduate scholarships for prospective teachers, graduate fellowships for teachers, and a third scholarship program for teachers. Regents Scholarships of up to $3,000 per year are available for undergraduates enrolled in approved teacher education programs leading to certification in mathematics, sciences, or other shortage areas. In return, recipients must agree to teach one academic year in New York for every two years of awards received.

New York's graduate fellowships provide awards of up to $4,000 per year for full-time study and $1,000 per year for part-time. An applicant for a full-time award must (a) be a teacher whose position has been abolished because of declining enrollments; or (b) hold a bachelor's degree in math, science, or other approved area but not be eligible for certification in any area. Also, recipients must agree to teach one academic year for every one year of awards. An applicant for a part-time award must be enrolled in a part-time teacher- preparation graduate program and agree to teach one year in New York for each two years of benefits.

Teacher scholarships in New York are provided through a federally-funded program for undergraduate study in approved teacher education programs leading to certification in mathematics, science, or other shortage areas. The awards (up to $5,000 per year) must be used in a New York State school. An applicant must be in the top 10 percent of his or her high school graduating class or have comparatively high GED scores and agree to teach two years in any state for each annual award received.

The Houston Independent School District's "Second Mile Plan" rewards teachers who meet the special needs of the district. The Plan was initiated in 1979 to address the problems of high teacher turnover, teacher shortages in critical subject areas, and the need to improve instruction. Two general requirements are that certificated teachers (a) have an acceptable rating on the most recent evaluation (or on the pre-assessment for first-year teachers), (b) have an average of five or fewer days of absence over the past three years and no unexcused absences, and, (c) have a certificate appropriate to the teaching assignment. The program amounts to differential pay for teachers in different schools and subject areas -- a concept opposed by the teachers' union but strongly supported by the school board.

The Houston Independent School District also offers subject-area incentives. Stipends of $800 for math and science, $1,000 for bilingual, and $600-900 for special education teachers are available to teachers committing to work in these areas.

3. **Early Recruitment.** ***The state, working with the business community, would initiate a new Early Identification and Recruitment program for teachers in critical shortage areas. The program would support a publicity and recruitment campaign designed to interest high school and college students in teaching careers.***

Again, many types of college programs invest resources in recruiting young students into particular areas of study. Public and private employers are now recruiting minorities more heavily than ever, and education, can expect more competition in particular for bilingual individuals. Teacher education programs also recruit, but they could do better if they were given adequate funding. State-supported recruitment programs for teaching seem to suffer from inconsistency and small endowments. This proposal calls for the funding of 2,000 part-time positions per year for college undergraduates. Each position would pay an annualized salary of $5,000. In addition, the state would recruit 1,000 high-school students per year and reimburse them for expenses to visit the best public schools. (See companion Appendix on costs and transition detailing the costs of these proposals.)

4. **Retraining.** ***The state would reimburse the expenses of teachers wishing to retrain for teaching in a designated shortage area. To be eligible for state reimbursement, teachers would have to pass the substantive portion of the Professional Teacher Examination (see Recommendation 5B) within three years of beginning their retraining program.***

This proposal would involve two complementary training efforts: Summer Institutes for Shortage-Area Teachers and Retraining of Shortage Area Interns.

Summer Institutes for Shortage-Area Teachers would include two six-week summer retraining programs (twelve weeks in all) in math, science, and bilingual education. Participants would earn sizable stipends and be reimbursed for expenses. The state should provide enough funding to allow a minimum of 1,200 participants in the first year of the program. The California Summer Institute in Science at the University of California, Irvine is one example of a successful program of this type.

The Retraining of Shortage Area Interns program would allow teacher interns who fail the pedagogical portion of the Professional Teacher Exam to attend institutes similar to those described above in order to review material and qualify to retake the exam. The state should provide funding to reimburse a minimum of $2,000 per year to each participating intern. (See companion report detailing the costs of the proposals.)

One advantage of retraining existing teachers for certification in shortage areas is that it allows for a direct measure of program effectiveness: simply count the number of retrained teachers who go on to teach in the shortage area. If implemented properly, this program would produce tangible benefits.

The Delaware legislature addressed the issue of critical teacher shortages by funding Academic Year Institutes and the Summer Inservice Program, beginning in 1984. The Institutes offer courses leading to certification in critical curricular areas to teachers during the school year.

Experienced teachers can take one course per semester free in a critical area. In addition, the state pays for travel expenses. Participating teachers may then qualify for the Summer Inservice Program.

The Summer Inservice Program is designed to provide instruction leading to certification in one or more designated critical areas for active secondary teachers not currently certifiable in those fields. Under the six-week program, participants register for a minimum of six semester hours of graduate or undergraduate credit in a specifically designed program to build skills and knowledge in the curricular area. Participants receive full support for tuition, textbooks, and fees. Following successful completion ("C" average or better) of all courses taken, participants also receive a stipend of $250 per week (up to a maximum of $1,500) paid by the state. Selection of teachers is competitive, with the Department of Public Instruction reviewing applications and making selection decisions.[6] Both of these programs operate through Delaware's college and university teacher education programs.[7]

5. **Business Programs.** *The business community would develop and promote programs (such as job-sharing, lending specialists to schools as Adjunct Teachers, and early retirement) to help resolve the critical teacher shortage.*

Business has experts in critical areas who would like to teach if ways can be found to enable them to contribute to schools without having to give up their current professions. Individuals from the private sector (either active or retired) would serve as Adjunct Teachers (see Recommendation 5A) in schools on a contract basis; in many cases, the individuals' regular employer would cover the cost of their service in the schools. Programs of this nature have been experimented with around the country and are usually categorized as alternative routes to certification (see Recommendation 5C).

Under this proposal, businesses would make both short- and long-term efforts to assist in resolving critical teacher shortages. Businesses would establish company programs that provide skilled personnel to help schools through short-term teacher shortages until the effects of the recommendations discussed elsewhere in this section had taken hold. These programs would release technically trained employees part-time, with pay, to teach secondary school math and science courses, and would encourage retired employees, or those about to retire, to join such a program.

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[6] In 1986-87, Delaware appropriated $152,500 for the Summer Program, based on an expected 113 participating teachers. In 1987, courses were offered in the following areas: Math, Computer Science, Physical Sciences, Chemistry, and Physics. Participants in each of these areas numbered 75, 50, 18, 11, and 9, respectively, for a total of 163 in the Summer Program.

[7] A third retraining program in Delaware is called Persons from Other Professions. The program accepts individuals who have a four-year college degree, would like to teach, and need education courses in order to earn certification. The state gave a total of $505,000 in 1987 to all participating schools. Schools receive funds for all three programs in one lump sum.

The shortage of teachers in critical areas is more severe in some districts than in others. Where the shortages are acute, districts sometimes press into service teachers who have much less subject matter training than do teachers with full single-subject credentials. Despite their lack of classroom teaching experience, mathematicians and scientists from private industry would often be more effective than these teachers. Many technically trained employees have the skills that would be needed to teach secondary school math or science courses, and would welcome an opportunity to do so. Their companies would release them part-time, with pay, to work as Adjunct Teachers for this purpose. A number of different arrangements could be made:

- **Split days.** An employee would teach one or two classes in a local secondary school, and spend the balance of the day at his or her regular job.
- **Split weeks.** An employee would spend one or two days per week teaching; the balance of the week would be devoted to his or her job.
- **Six-day week.** An employee would spend one or two days teaching, but work and extra day at his or her company job, with extra compensation. Alternatively, an employee could be paid to teach special Saturday classes, perhaps in advanced math or science, for top high school students, using either the high school of company facilities. Many employees might be willing to teach such classes on a voluntary basis.
- **Paid leaves.** An employee would teach for a semester or a year, then return to his or her regular job. The company would pay the difference between the employee's teaching and company salaries, or could elect to pay the full salary during the employee's teaching leave.

Retirees are also a talent pool for Adjunct Teacher roles. Employees who are already retired would be contacted and urged to join a volunteer teaching program; the company could defray their expenses. Employees who are about to retire could be contacted for the same purpose. And employees who are considering early retirement could be encouraged to teach and be provided with some extra financial support.

Employees who wish to teach will usually have had no previous classroom experience. Companies would therefore work with schools, local college and university schools of education, and Institutes for School Development (see Recommendation 4A) to make arrangements for the employees to receive some specialized training in teaching fundamentals. This training could include short lecture courses, classroom observation, and brief apprenticeships with credentialed Teachers or Lead Teachers.

As long-term approaches to resolving critical teacher shortages, businesses would create dual career opportunities for current and prospective Teachers and Adjunct Teachers and provide scholarships and low interest loans for university students who make a commitment to teaching in critical shortage areas (which would supplement the state programs discussed above).

The serious salary disparities between teaching and business positions pose a dilemma for students who have trained to teach math or science, and for students who have majored in one of these areas and are considering going on to obtain a teaching credential. Some of these students have a public service orientation and would like to teach, but are not enthusiastic about committing themselves to low paying careers under difficult conditions. Many would teach as long as it were not a full time occupation; others would simply like to keep their options open. Under these circumstances many choose not to teach at all.

For these students, dual career options and the Adjunct Teacher role may be important incentives to give teaching a chance. They would not be forced to choose between careers in business and education, but could try both. Some might eventually elect to teach full time; others would want to maintain a dual career or leave teaching altogether.

Many math and science teachers now in the schools are also tempted to leave teaching for more lucrative and less stressful jobs in private industry. Many do leave every year. For these teachers, too, the provision of dual career options might be a way to delay or change a decision to leave education.

Working in cooperation with schools and postsecondary institutions, the business community would develop opportunities for both credentialed Teachers and non-credentialed Adjunct Teachers to pursue careers in business and education. These dual careers could take several forms:

- **Service corps**. Businesses could recruit employees who have obtained teaching credentials or are interested in teaching but are uncertain about pursuing teaching careers. If they were willing to teach for a few years, their employment could be postponed and their jobs guaranteed.
- **Job sharing**. Businesses could employ a team of two people, each of whom would work half-time in business and teach half-time. The team concept would help insure close coordination between the two half-time employees, both for their business job and their teaching.
- **Permanent part-time**. Employees would spend half time teaching and work half time in business. These would be half-time positions without a job sharing team.

California's colleges and universities are responsible for teacher training and have the talent pool needed for programs designed to train private sector employees to teach, improve the skills of current shortage area teachers, and retrain teachers in critical shortage areas. However, many programs that postsecondary institutions might undertake would be more effective if coordinated with business, which could offer its own talent and facilities, as well as financial support. Many such cooperative ventures are currently under way, but more could be directed towards resolving teacher shortages. These efforts would include:

- Improvement of postsecondary programs for recruiting new math, science, and minority teachers, coordinated with business community scholarships and loans that would supplement the state programs discussed earlier.
- Use of postsecondary instructors, including emeritus professors and advanced graduate students, to teach in critical shortage areas with business community financial support.
- Special postsecondary "crash courses" in classroom techniques for business employees released to teach on a part-time basis.

- Cooperative planning for dual careers for prospective teachers, including joint business-education degree programs at colleges and universities, supported by the business community through employment opportunities and active recruiting.

In addition to encouraging similar state government programs, the business community could make direct financial support and long-term low interest loans available to college and university students who make a commitment to teaching. The extent of the support could be determined by need, though all students would have to meet high eligibility standards. The grants or loans could also support students who wish to train for a long-term dual career in business and education.

THE TRANSITION

IMPLEMENTATION

The proposals discussed in this report are ambitious, but they are achievable if implemented gradually with the participation of policy makers at all levels. Their implementation would require a combination of new legislation, changes in Board of Education and State Department of Education (SDE) policies, adjustments by colleges of education, and planning at the local level. Some policies would involve mandates; others incentives. The mandates and state incentives are designed to restructure the system -- enabling local autonomy and promoting local responsibility. Most of all, the proposals rely on grass-roots involvement and a great deal of cooperation on the part of school boards, districts, unions, professional associations, businesses, principals, teachers, parents, and community members.

The magnitude of change proposed here could not be implemented at once. New initiatives should be phased in over a period of time to allow a smooth transition. One stage of implementation would pave the way for the next stage. A step-by-step process of learning, experimentation, and implementation is necessary to realize the reforms proposed here.

This report does not lay out a precise timetable for specific legislation, changes in the education code, or other detailed policy decisions necessary to implement the proposals described here. The legislature, the governor, the State Department of Education (SDE) and local policy-makers should and would have many options for timing of the reforms. This chapter proposes a broad framework for implementing the recommendations. The framework consists of implementation strategies and assumptions that demonstrate how the transition could work.

In addition to transition plans, policy makers must prepare for the politics of implementation. In order for comprehensive change to occur, there must be a broad-based consensus of Californians committed to high quality education for all students. Many teachers are cynical about reform movements because they have experienced fads and well-intentioned efforts that fade after several years; teachers must be the leading edge of the solution, not just public employees ordered once again to do something different. Some politicians are skeptical that the education system can change in any fundamental way; they must be convinced that educators have a long range vision and a commitment to excellence. Most citizens want an outstanding public education system and would be willing to support substantial funding increases if they felt that the necessary improvements would really happen; they must be persuaded that the state has a fiscally sound and practical plan to move public education to a new plateau of performance and efficiency. Both before and after initial reform legislation is passed, it is essential that policy makers at all levels and various interests across the state work to build a consensus and help publicize reform efforts.

THE STRATEGY

Implementation of the recommendations could occur in many different ways. This section describes an approach that takes into account various practical problems. Broadly speaking, implementation would involve three stages:

1. **Start Up and Planning.** Legislative and administrative policies would be established. The State Department of Education would hold meetings with practitioners to receive input and disseminate new policies and guidelines. State and local planning for training and implementation also would begin.

2. **Experimentation, Development, and Training.** Pilot projects would be initiated, various institutional mechanisms developed, and teachers and administrators would begin staff development.

3. **Implementation, Evaluation, and Revision.** Reforms would be implemented on a statewide basis either as mandates or local options. A continuous process of evaluation and improvement would be instituted.

The timing and sequencing of these stages would vary according to the reform being implemented. The next section describes the way each reform might be phased in. The following are strategic principles for designing the transition:

- **Start Immediate Implementation of Some Structural Changes.** Within two years of enabling legislation (as soon as regulation and planning occur), a number of major structural reforms should be begun. These include the student post-10 option and parental choice guarantees; the institution of Lead, Assistant, and Adjunct Teachers; the expansion of the current state-subsidized preschool program to cover an increased number of low income four-year-olds; incentive grants for schools of choice and for the use of technology; competition for the initial state subsidies for Institutes of School Development; government and business efforts to increase year-round schooling; and the initiation of critical teacher shortage programs.

- **Initiate Pilot Projects.** Many components of the recommendations would require several years of development and pilot trials before full-scale implementation. These include the integration of preschool, kindergarten, and first grade into non-graded schooling that offers activities appropriate to a child's age; development of student exit tests, core competencies, and integrated curricula in the high school; development of professional teacher examinations and teacher assessment panels; and development of more thorough language assessment instruments for limited English-speaking students.

- **Expand Scope of Reforms as Fiscal Situation and System Capacity Permit.** Several reforms should be started on a limited basis consistent with resource constraints. Their statewide implementation should await the results of policies that expand school and system capacity. For example, the introduction of pre-schooling should proceed at a pace with the state's ability to increase teacher supply and facilities. Similar phasing assumptions hold for the extent of funding more focused staff development, the introduction of new language policies that require more teachers, and the full range of proposed teacher salary increases. If the state's financial condition does not permit increased school funding for program expansion, the rate of transition could be slowed.

- **Redirect Current Funding to Support Reforms, Rather than Just Adding More Money.** Within the first three years, current funding to districts (both general and categorical funds) should be shifted to a system where districts receive a smaller general allotment and schools receive a School Discretionary Budget. The latter budget should include incentives for schools-of-choice, local planning for year-round schedules and flexible course scheduling, school-based staff development for new instructional methods, and the use of technology. As these reforms come into play, the state system could be expected to realize cost savings as a result of more efficient deployment of teachers and use of physical facilities.

- **Phase-in Some Reforms Gradually to Minimize Disruption.** Though the reforms would eventually establish a new education structure, they must be introduced in ways that minimize dislocations of students, teachers and administrators, and gain their support and cooperation. For example, the multi-tiered teacher system should be introduced slowly with Assistant Teachers being hired to replace some Teachers who retire or otherwise leave the system. Teacher salaries should be gradually increased by 20 percent in constant dollars, and the Lead Teacher system should replace the Mentor Teacher Program. As another example, staff development funding should be redirected gradually as the autonomous state-subsidized Institutes for School Development are established. All Lead Teachers and administrators should receive staff development within the first seven years. As they returned to their districts, they would become leaders in the implementation of reforms. As a final example, the recommendations call for the elimination of tracking in high schools. To minimize disruption to students, implementation should begin with ending tracking in the first high school grade and then ending tracking each successive year in the next higher grade level.

PHASE-IN STRATEGIES AND ASSUMPTIONS FOR EACH REFORM

The following section describes in general terms how each of the reforms under the six-point program might be phased-in. More specific assumptions are detailed in the separately published appendix on costs and transition.

1. Expand and Focus Schooling

A. Establish Primary Schooling for All Students

This recommendation proposes that all four-year-olds have the opportunity for preschooling, that children from four to six years of age attend primary schooling, and that providers of primary schooling should be public or private schools under contract to the State Department of Education.

The State Department of Education currently operates effective preschool programs for children from low-income families. The programs provide contracts to public or private schools that meet state requirements. The implementation of this report's proposal assumes that the current programs would be gradually expanded so that the supply of qualified public and private schools (and teachers) can meet the growing number of children that would be admitted to the program. Currently, about 25 percent of four-year-olds from low income families attend state-supported preschooling, and there are long waiting lists to enter the programs. We assume that programs would be extended to children on the basis of need and that it would take between three and five years to offer preschooling to all children from low-income families. Thus, the initial phase of implementation would not require major new institutional mechanisms, but only an extension of the current contract procedures under the Child Development Division.

After three years, when the preschool needs of most poor children have been met, children from better economic circumstances would become eligible for state-supported preschool at the rate of five to ten percent of non-poor students per year. Under this gradual process, all four-year-olds would have the opportunity to attend state supported preschool by the turn of the century. For costing purposes, we assume that about ten percent of non-poor children will not participate in the program, but attend non state-subsidized private schools.

Steps to build capacity would be taken to keep pace with the gradual expansion of preschool to more children. During the first three years of start up, these steps would include the promulgation of regulations and mechanisms for the award of contracts, the provision of scholarships for prospective teachers, staff development for teachers, expansion of the current Child Care Resource and Referral Centers, the establishment of loan guarantees, and an insurance pool for providers.

The most controversial aspect of this recommendation may be the call for preschool to be combined with kindergarten and first grade to form a distinct primary school which could be offered by public or private providers. Earlier chapters explained why this approach makes sense in terms of child development. The controversial aspect is therefore not its educational benefits, but a public versus private sector issue. The proposal would require a shift in the present alignment of the public schools which now offer kindergarten and first grade. (Schooling is compulsory beginning at age six; our proposal does not call for any change in this provision). We propose that the integration of four-, five-, and six-year old children into a primary school would be gradually introduced after pilot projects demonstrate its feasibility. For the first three to five years, the state would require public or private schools receiving state contracts to provide programs for four- and five-year-old children. Many private schools now offer such programs, but public schools would have to expand their kindergarten programs to enroll four-year-olds (and do so in such a way as to provide developmentally appropriate and non-graded activities). Simultaneously, funding for sites for four-, five-, and six-year-olds would be provided on a pilot basis for three to five years. Assuming these projects demonstrated the effectiveness of the primary school, then public (and private) schools would gradually be expected to extend their programs to six-year-olds.

B. Focus Elementary and Secondary Education on Core Academics

This proposal calls for the elimination of tracking, and revising curriculum so that all students can be expected to master the same core subjects needed for a full and productive life in the 21st Century. It is also recommended that junior highs and middle schools be merged with the senior high schools.

Tracking has become so much a part of secondary schools that its elimination would have to occur gradually over five to ten years. Several steps would be needed in preparation for its elimination. First, state efforts in developing model curricula would be directed toward formulating a general curriculum that would integrate subjects which are currently overspecialized and separated from each other. This development effort would take between five and ten years to cover all subject areas. Insofar as possible, it would build on the existing state process, but gradually the Institutes for School Development (whose members are teachers, administrators, and experts from postsecondary institutions, see Recommendation 4A) would play a critical role in piloting and developing curricula.

Second, within the first three years, schools would be given more autonomy to formulate educational programs that fit the special characteristics of their students (see Recommendations 2A and 3A). The State Department of Education (SDE) has been encouraging schools to expand the college track and reduce the general education track across all grades. We suggest a different strategy. On a pilot basis, some schools would voluntarily implement practices that ultimately would eliminate tracking by successively combining the tracks in earlier grades and eliminating separate tracks in later grades. This might be done a grade at a time to allow students who began under a tracking system to complete their high school career in the tracks, while new students would start out in a non-tracked system. Thus, we recommend that the pilot schools successively shift specialized courses to the last two years of high school (see Recommendation 1C). Some middle schools already follow non-tracking practices, and SDE might make information about these schools available to the pilot schools and the Institutes for School Development. As the advantages of a non-tracked system become apparent and the implementation problems are resolved, we would expect the Institutes to train administrators in techniques to replace tracking, and schools across the state to adapt these practices as their administrators and teachers learn how other schools have proceeded.

We also recommend that grade consolidation and restructuring occur so that junior high schools grades are incorporated into senior high school. Currently, California schools are arranged in a wide variety of grade alignments, with elementary schools comprising kindergarten through grade 6 (though some schools retain the K-8 structure that was standard about thirty years ago) and middle schools or junior high schools often comprising grades 7, 8, and 9. For reasons discussed in previous sections, we propose either that grades 7 and 8 be recombined with the elementary school, or that high schools run from grades 7 through 10 with students having a choice at grades 11 and 12 to continue at their high school or to attend other post-10 options (see Recommendation 1C). The transition to consolidated grades would be done on a step-by-step basis, preventing dislocation for students One obstacle for implementation would be facilities. We propose that the state require that new building plans take into account the consolidation of the high school grades.

C. Institute a Post-10 Option of Specialized Education

This recommendations calls for students to have an option to attend any public high school or public or private postsecondary institution after completing grade 10.

Current law allows students to attend community colleges and provides for both the high school and the community college to receive full ADA support. This proposal would simplify current procedures and allow state funds to follow the student (with a ten percent administrative payment to the student's school of origin, except in cases where the student goes to another high school). Moreover, it would allow students to attend private postsecondary institutions. During the first year, the State Department of Education (SDE) would develop regulations and procedures and promulgate them to all districts. These regulations would include a determination of which postsecondary institutions would be eligible to accept students under the state-provided tuition plan. (The institutions would have to be both not-for-profit and accredited.) At the same time, Regional Information Centers (see Recommendation 2C) would be initiated to provide information and counseling to parents about the program and about the choice of providers. The program would begin in year two, and thereafter services would be expanded as needed. The program should be evaluated frequently and revised as necessary.

2. Establish Accountability Based on Performance and Chance

A. Set Student Performance Goals, Institute Statewide Exit Tests, and Deregulate Schooling

This proposal recommends that the state set student performance goals, institute statewide exit tests that would be taken at the end of the 6th and 10th grades, and remove regulations governing the way schools design their educational program.

Drawing on its work on Model Curriculum Standards, during the first two years the State Department of Education would convene panels that would include educators and others from the public and private sectors, to establish student performance goals. At the same time, SDE would redirect its efforts on the Golden State Examination and begin the development of exit and end-of-course tests for all students. We estimate that the exit tests would take between four and six years to develop followed by three years of pre- and pilot testing.

As the new tests are phased in, the current student proficiency tests and the Golden State Examinations would be replaced. The California Assessment Program (CAP) tests would be modified and eliminated, as the end of course and exit tests prove their effectiveness. These changes should take place within the first eight years.

As discussed earlier, the exit tests would be oriented toward testing higher order skills and students' generalized knowledge across core subject areas. Once student performance goals and the tests are in place, they would give educators clear goals. Given other accountability measures (see Recommendations 2B and 2C), they would enable the state to remove some regulations governing the process of schooling and enable educators to design educational programs that fit the needs of their students -- *and* help all students master the core subjects and do well on the state tests. The deregulation of the school day, school year, course requirements, unit requirements, and graduation requirements would be piloted on a trial basis beginning in the first three years, followed by evaluation and incentive grants for demonstration sites in years four through eight.

Depending on the results of these demonstrations in deregulation, full implementation might begin in years eight, nine, and ten.

At the same time, state efforts in developing model curricula would be directed toward formulating a curriculum that would integrate core subjects. This development effort would take between five and ten years to cover all subject areas. Insofar as possible, it would build on the existing state process, but gradually educators at the Institutes for School Development (see Recommendation 4A) would play a critical role in developing and piloting curricula.

B. Strengthen School Performance Reports and Intervene in Failing Schools

This recommendation calls for steps to be taken to expand the current system of school performance reports and to institute new procedures to intervene in chronically underperforming schools.

Current performance reports do not reach parents (or even teachers) and are not written in a way that communicates to non-educators. The proposed simplification and more extensive dissemination of the reports can be done rapidly (one year, with dissemination occurring in the second year). However, it would take more time to introduce better measures. The best measures would be both the average student performance on the new exit tests (or end of course tests) and student score distributions, because these would be meaningful to parents. Under the approach outlined above, test results would not be ready until the seventh or eighth years. In the interim, measures of expenditures per student and other inputs to the educational process might be added to the performance reports.

Intervention in chronically unsatisfactory schools should be implemented early. The recommendation calls for schools to be classified into three categories, with the lowest two categories being eligible for increased aid after the creation and approval of a school development plan. During the first year, SDE would establish criteria for categorizing schools (largely using school performance report data) and begin the process of receiving input from communities on whether they believe their schools are performing unsatisfactorily. Each subsequent year, schools that are classified as needing more financial assistance would receive assistance and have other aspects of the recommendation put into place. Within five years, the state will have identified the initial candidates for intervention and the process of renewal would be initiated in all these schools. We assume that after five years only a small number of schools would be in the unsatisfactory category.

C. Support Parental Choice of Expanded School Options

This recommendation proposes that parents be given greater choice in selecting both existing schools and mini-schools within schools.

The implementation of expanded parental choice for existing schools within and between districts requires planning by districts; such planning should be possible within two years after the authorizing legislation. In practical terms, districts would have to develop plans within two years that establish parental choice within their borders, and enter into voluntary agreements with other districts. These plans would establish criteria that specify the school's space capacity rules for admitting students in case of over-subscription, and procedures that guard against segregation. To facilitate this planning, SDE would hold planning workshops and prepare models from the successful cases of open enrollment and limited choice plans used in California and around the country.

Also during the first two years, SDE would develop regulations, guidelines and contracting mechanisms for Regional Information Centers which would actively provide information about choice to parents and students.

The development of mini-schools would be the province of schools, rather than districts, and planning for them would be part of each school's School Development Plan (see Recommendation 4A). As early as the first year after legislation, schools could submit an application for the one-year planning phase of a Schools-of-Choice grant followed by a three-year implementation grant. Since a small percentage of California schools already have developed alternative programs and some forms of schools of choice, it is reasonable to assume that five to ten percent of schools would apply immediately. The growth in the number of grant applications and awards would thereafter be paced so that an estimated five to ten percent of all schools would receive a grant each year over an eight year period (thus over forty percent of the schools would receive a Schools-of-Choice grant within eight years after legislation).

3. Establish School Autonomy and Empower Parents, Teachers, Principals

A. Provide Schools with School Discretionary Budget Funding and Authority

This proposal calls for the gradual transfer of money and authority to schools to enable them to design and implement their educational programs. The transfer would entail allocating funds directly to schools from the state according to legislated formulas. The enabling legislation would draw on earlier steps to consolidate categorical and other programs at the school level.

Since the transfer of funds to schools would cause a major re-examination of district staff and priorities, this policy would have to proceed gradually. During the first three years, we assume that AB 777 consolidation of programs would be expanded and school-level mechanisms would be implemented to provide school-level authority for program planning. The current School Improvement Program planning mechanisms might be used as a model for developing appropriate decision-making procedures. Four to six years following the enabling legislation, it is assumed that a greater percentage of funding will go to schools rather than districts, so that schools can, for example, hire Assistant Teachers (see Recommendation 5A) and contract for specialists, staff development (see Recommendation 4A), and educational technology services (see Recommendation 4B). Thus, districts and the state would have up to six years to make necessary adjustments for the transfer of authority and funds to the schools.

B. Involve Parents, Community Members and Teachers in School Governance

This proposal calls for a school Parent-Community Governing Body and a School Coordinating Council (composed of teachers and the principal) to govern the school, with the former having oversight responsibilities and the latter operational authority over the school's educational program.

The School Coordinating Council (SCC) could be phased in quickly. Under the current School Improvement Program, there are School Site Councils that provide a similar organizational vehicle; a major structural difference is that the SCC would not include parents. We propose that the SCCs be initiated one year after enabling legislation. However, they could not be expected to function smoothly at first; a three-year period can be expected to allow them to work out implementation difficulties.

The school Parent-Community Governing Body would have to be implemented more slowly in line with the gradual phase-in of the School Discretionary Budget (see Recommendation 3A). It is assumed that the governing body could be formed and functioning within three years. However, the full transfer of authority from districts to school might be brought about more slowly. Some districts might want to prepare schools for their new responsibilities and feel reluctant to make the change without adequate testing and training of school site people. Therefore, we propose that demonstration sites be identified and that Institutes for School Development help prepare models and training based on these trials of the full transfer of authority to the school level. We recommend that the enabling legislation provide grants for demonstration sites and establish goals for all districts to make the transfer to a fully functioning school-level Parent-Community Governing Body within six years.

C. Expand Teacher Responsibilities and Promote Team Approaches to Instructional Management

This recommendation proposes that schools be given incentives and training to organize instruction into teacher teams, with different types of teachers (Lead Teachers, Teachers, and Assistant Teachers) playing different roles.

SB 813 established a new classification of teacher, called the Mentor Teacher. Our proposed classification -- Lead Teacher -- has some similarities to the Mentor Teacher, and could be established early by extending the Mentor Teacher process. Implementation would require first year start-up regulations and changes in the Education Code, but pilot projects would not be necessary. We propose a transition that gradually phases-in Lead Teachers and teacher teams, drawing on the experience of early participants.

Specifically, the cadre of Mentor Teachers would serve as the initial core of Lead Teachers. However, instead of the five percent of the teaching force who are now Mentor Teachers, we recommend that Lead Teachers constitute approximately twenty-five percent of Full Teachers and approximately fifteen percent of Full Teachers plus Assistant Teachers. Not all Lead Teachers should be nominated and installed at once. Instead, we propose a gradual phase-in over a five-year period with an increasing number of Lead Teachers each year as experience and expertise is developed. Beginning in the third year after the enabling legislation, the initial cadre of Lead Teachers would be trained at the Institutes of School Development (see Recommendation 4A) and help design models for working with teacher teams. As each new group of Lead Teachers is selected, they would be trained at the Institutes by the earlier group of Lead Teachers. In this way, positions for all Lead Teachers would be established within six years of enabling legislation and all Lead Teachers would have helped develop the art of supervising teacher teams.

We do not propose a timetable for the implementation of teacher teams for two reasons. First, implementation would be voluntary and some schools may adopt a wait-and-see attitude before trying teacher teams. Second, there is no one best way to implement the teacher team concept. This recommendation calls for planning grants to be awarded to schools that try team approaches and revise instructional management plans along the lines suggested here (see Recommendation 2C for phase-in details). Schools will develop approaches that are most suited to their environment. The Institutes of School Development can learn from these efforts and disseminate different models. However, we expect development will continue as practitioners learn new ways to provide quality education to all students.

The phase-in of Assistant and Adjunct Teachers is discussed under Recommendation 5A.

4. Modernize Instruction

A. Redirect Staff Development to Advance Implementation of Effective Practices

This proposal would establish Institutes for School Development and redirect staff development funding so that schools could purchase services from the Institutes and other providers of staff development.

Institutes would be funded by competitive contracts, and it is assumed that it would take two years after enabling legislation to develop the contract specifications, disseminate notice of the contract awards to prospective bidders (including consortia of districts, schools, and universities), hold the competition, and award the initial contracts. We assume that up to four awards will be made in the first competition and a similar number in a second competition in the third or fourth year after the enabling legislation. Depending on the applicants and the quality of their submissions, the state might decide to make fewer awards in the first round and see how effective the initial contractors are at providing services. We assume that full implementation would take six years.

During year three, when the initial Institute contracts would be awarded, the State Department of Education would give notice of its intention to fund staff development demonstration sites. These demonstrations, funded during years four, five, and six after enabling legislation, would operate in conjunction with the new Institutes, and could serve as their first efforts to develop, test, and disseminate effective models of mastery and cooperative learning, teacher teams, mini-schools, technology use, and flexible schedules. It is assumed that only three years of special funding for these demonstrations would be provided, and that thereafter Institutes would support their development activities with funds from their state-subsidized budget and fees from schools for Institute services.

It is assumed that staff development funds would be redirected from categorical and district controlled funds to the schools during years four through six; by the end of six years after the enabling legislation the transfer would be complete. Under this proposal, schools would be required to prepare School Development Plans in order to receive their School Discretionary Budget (see Recommendation 3A for phase-in details). After the first three years, these Plans would contain specifics on staff development activities.

B. Enable All schools to Integrate Technology into Instruction and Management

This proposal calls for the state to develop standards for the use of technology; for schools to develop Technology Use Plans (TUPs) as part of the School Development Plans; and for schools to have the autonomy to purchase technology services and training in technology use from any provider. It also calls for state grant programs that would provide incentives for the increased and productive use of technology.

The enabling legislation would establish an Educational Technology Committee, drawing on the experience of the current committee. During its first two years, the Committee would formulate and promulgate guidelines for the purchase and use of computer-based technology and for the development of Technology Use Plans (TUPs). The Educational Technology Committee would hold public hearings on the proposed standards and guidelines for TUPs and they would establish eligibility standards for the grant programs described earlier (see Recommendation 4B). These grants would be awarded gradually to match the growing capability of schools to use such grants productively. The phase-in and their costs are discussed in detail in the Appendix on costs and transition.

Other phase-in considerations for this recommendation are geared to met the parallel transition to the School Discretionary Budget and the establishment of the Institutes for School Development (one or more of the Institutes would specialize in technology use). See the transition discussion for Recommendations 3A and 4A for detail.

C. Promote Adoption of Flexible Educational Programs

This recommendation proposes that year-round schooling become the norm in California schools and that schools receive incentives and training to implement year-round schooling and flexible scheduling approaches.

We do not propose to mandate year-round schooling and flexible scheduling. A key aspect of this proposal calls for state leaders and businesses to work together to promote year-round schools and flexible schedules. Such activity should be started in the first year and continued until these new approaches become established throughout the state. Though much of the activity could be called public relations work, it would have to be decentralized because each school's Parent-

Community Governing Body would have to decide if it wanted to adopt new scheduling. Each school faces a unique situation in terms of its facilities, enrollment, and community willingness to adopt year-round scheduling. Therefore, this report does not propose any specific timetable or approach, except to encourage business to become active at the local level.

However, we do assume that the state incentive program, described in detail in the recommendation, will have an increasingly widespread effect. Each incentive grant would consist of one year of planning, followed by a three-year implementation grant. For the purposes of cost calculation (which is presented in the separately published appendix on cost and transition), it is assumed that an average of approximately 110 schools per year will adopt a year-round schedule through the turn of the century, and that the process continues thereafter as the savings and educational advantages of this plan become apparent.

The other aspects of this proposal -- flexible schedule of classes, teachers instructional time, and student time -- are approaches that must be adopted locally as teachers and administrators become trained and see evidence of their effectiveness. It is assumed that their implementation will mirror the implementation of the teacher teams and mini-schools, the development of the Institutes, and training of Lead Teachers and administrators. Thus, we would expect flexible schedules of classes and instructional time to be adopted by the more risk-taking schools within the first three years after enabling legislation, followed gradually over the next five years by about one-half of the schools, with the remaining schools adopting more slowly over a ten-year period.

5. Strengthen the Teaching Profession

A. Establish a Multi-tiered Teaching System with Higher Salary Rates

This proposal recommends differentiated roles for teachers, including Lead Teacher, Full Teacher, Assistant Teacher, and Adjunct Teacher. The latter two types of teachers would not have tenure. Tenured teachers would receive about a twenty percent increase in their salary schedules (plus cost-of-living adjustments) over a ten-year period. Lead Teacher salaries would be incremented by an additional twenty-percent.

The discussion of the phase-in for teacher teams indicated how Lead Teachers would be introduced (see Recommendation 3C). Assistant Teachers would be phased-in differently. They would be hired by schools, so the rate at which they would be hired would depend on local decisions. The local hiring of Assistant Teachers would first require that the state establish certification procedures, which should take no more than one year to develop, circulate for comments, and promulgate. This recommendation calls for Assistant Teachers to replace 25 percent of new teaching positions (with the remaining 75 percent filled by tenure-track intern teachers). For the purpose of phase-in and cost calculations, it is assumed that the rate of hiring of Assistant Teachers would average between 7,000 and 8,000 per year in years two through four, and would increase to between 14,000 and 16,000 added Assistant Teachers per year (which is approximately a 25 percent average replacement of new teaching positions, taking into account enrollment growth and retirement) by the turn of the century.

This calculation, which totals approximately 120,000 Assistant Teachers in the system by the year 2000, also assumes that Assistant Teachers who leave the profession would be replaced by new Assistant Teachers.[1]

The general increase in the teacher salary schedule would be phased-in over a period of time. The rate at which this increase should occur is a political decision requiring complex negotiations by many actors. Rather than try to specify the exact mechanism by which this increase might be granted, this report assumes that various mechanisms can be developed. We assume that the total increase could occur as quickly as six years (which might mean an average of 3.09 percent increase per year in constant dollars) or more slowly over an eight year period (for an average of 2.3 percent per year). Assistant Teachers would earn an average of $17,000 per year (plus 30 percent benefits) and their salary rate would increase with inflation.

B. Upgrade the Process of Becoming a Teacher

This proposal recommends that a new teacher board -- the California Teaching Standards Board, (CTSB) -- be established, and that new teachers would have to pass a Professional Teacher Examination , be evaluated on their teaching by a peer Teacher Assessment Panel , and serve a four year internship before being eligible for tenure.

Enabling legislation would establish the four year internship to begin one year after the law is passed. The same law would create the CTSB as a replacement for the current California Commission on Teacher Credentialing, and would continue to that latter's functions until all the elements in this proposal were in place. This full changeover to the new system would not take place for approximately eight years.

We assume that the development and validation of the Professional Teacher Examination would take four years, and that a fifth year of pilot testing would be necessary before full implementation in year six. Though policymakers may decide to implement the Teacher Assessment Panels (TAP) evaluation process on a faster time schedule, this report assumes the TAPs would go into operation in year seven for teachers who have taken the Professional Teacher Examination and have served a one-year internship. The Appendix on costs and transition provides details on the assumed training and operation of the peer Teacher Assessment Panels.

C. Assure Continuing High Professional Standards.

This proposal recommends that full Teachers and Lead Teachers be evaluated by Peer Review Teams, and that all teachers renew their teaching credential every seven years by retaking relevant portions of the Professional Teacher Examination.

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[1] No phase-in assumptions are made for Adjunct Teachers. Again, their introduction into the teaching force will depend on local decisions. Schools would use their discretionary budget to hire Adjust Teachers. Their widespread hiring might not take place until the fourth or fifth year, when schools gain full control over their own programs.

Since the Professional Teacher Examination would not be fully implemented until the sixth year, the current credential renewal system would be retained for that time period. Beginning with the seventh year, approximately ten percent of teachers each year would take the PTE, and other renewal requirements would be eliminated.

The Peer Review Panels would be started more quickly. We assume that the start-up would take one year and that two years would be required for pilot-testing and training of evaluators. Beginning in year four, increasing numbers of Full Teachers and Lead Teachers would be evaluated each year until year eleven, when the Peer Review Panels would be fully implemented and every teacher would would be evaluated every third year.

6. Capitalize on Diversity

A. Build Capacity to Provide English Language Acquisition

This recommendation calls for policies to promote the beginning of English-language acquisition in preschool, strengthening assessments of English fluency, increasing the number of instructors for the special needs of Limited English Proficient students, and training teachers in the use of effective and efficient models for these students.

The phase-in for early language development work in preschool would begin immediately. It would require the State Department of Education to establish regulations requiring existing programs to follow developmentally appropriate language instruction policies geared toward the needs of each child. However, Recommendation 1A described a gradual phase-in of the preschool program to keep pace with the supply of providers and the ability of the system to expand. Consequently, the implementation of appropriate language policies in preschool would proceed in parallel with the expansion of the primary school program.

The upgrading of assessment programs for English fluency should begin as soon as better instruments have been developed and field tested. We assume that it would take two years to develop the assessment instruments, and that the assessments would be introduced in successive grade levels over a four-year period. By the seventh year, we would expect full implementation.

The effort to expand the instructor pool depends on hiring qualified Assistant Teachers (see Recommendation 5A), creating a new credential (Language Development Specialist), making use of critical teacher shortage programs (see Recommendation 6C), establishing Institutes for School Development that specialize in English language acquisition, and training teachers in the use of effective instructional models (see Recommendation 4A). Each of these steps would begin according to their own phase-in logic, as described above. However, it would be easy for these disparate activities not to culminate in a solution to the shortage of qualified teachers. Therefore, we propose that the State Department of Education establish an ongoing task force to help monitor the progress of teacher supply in this area, and make recommendations for adjusting the phase-in so that by year seven all schools use qualified instructors.

B. Assure Foreign Language Proficiency for All Children

This proposal recommends that California adopt policies aimed at gradually realizing the goal of all students learning at least one foreign language.

There are three components of this recommendation that determine its phase-in. First, we propose that foreign language training begin in the primary school (see Recommendation 1A). The timing of this component depends on the phase-in of the primary school, as discussed above, and would not be complete until the end of the century. Second, we propose that foreign language sections be incorporated into the exit test and that end-of-course tests in foreign languages also be developed (see Recommendation 2A). Until all students have the opportunity to receive adequate instruction in a foreign language as envisioned by the proposal, the foreign language portion of the exit test should not be required (end-of-course tests would not be required by the state). Therefore, we recommend that the tests be made available by the seventh year, but that the language portion of the exit test not become required until year eleven (assuming that teacher supply problems and related issues were solved).

Third, our proposals would address the shortage of foreign language teachers, which is the main barrier to realizing the goal of this recommendation. The teacher supply problem feeds on itself -- since the schools (and perhaps parents) do not consider the acquisition of a foreign language a high priority and therefore are not training many students, there is an inadequate supply of teachers to train would-be teachers. This situation could be remedied over a ten-year period if foreign languages became a high priority. The first step might be for schools to contract out for foreign language training specialists. Simultaneously, the state should establish foreign languages as a priority area in its critical teacher shortages program (see Recommendation 6C). Though these efforts will eventually increase the supply of teachers, we cannot expect this proposal to be fully implemented before the end of the century.

C. Establish Critical Teacher Shortages Programs

This recommendation proposes a variety of public and private activities to deal with critical teacher shortages, including recruitment of teachers from underrepresented groups.

A major aspect of encouraging teachers to enter the profession is making teaching attractive and reasonably well-paid. The proposals throughout this report are designed to do precisely this. Nonetheless, it will take time before all the reforms are in place, and it will take information about their effects to change the perception of teaching as an undesirable profession. We propose that in the first year the State Department of Education convene meetings with members of the business community who have participated in partnership arrangements with schools in order to make a concerted effort to identify prospective teachers and recruit students in high school, college, and graduate school into the profession.

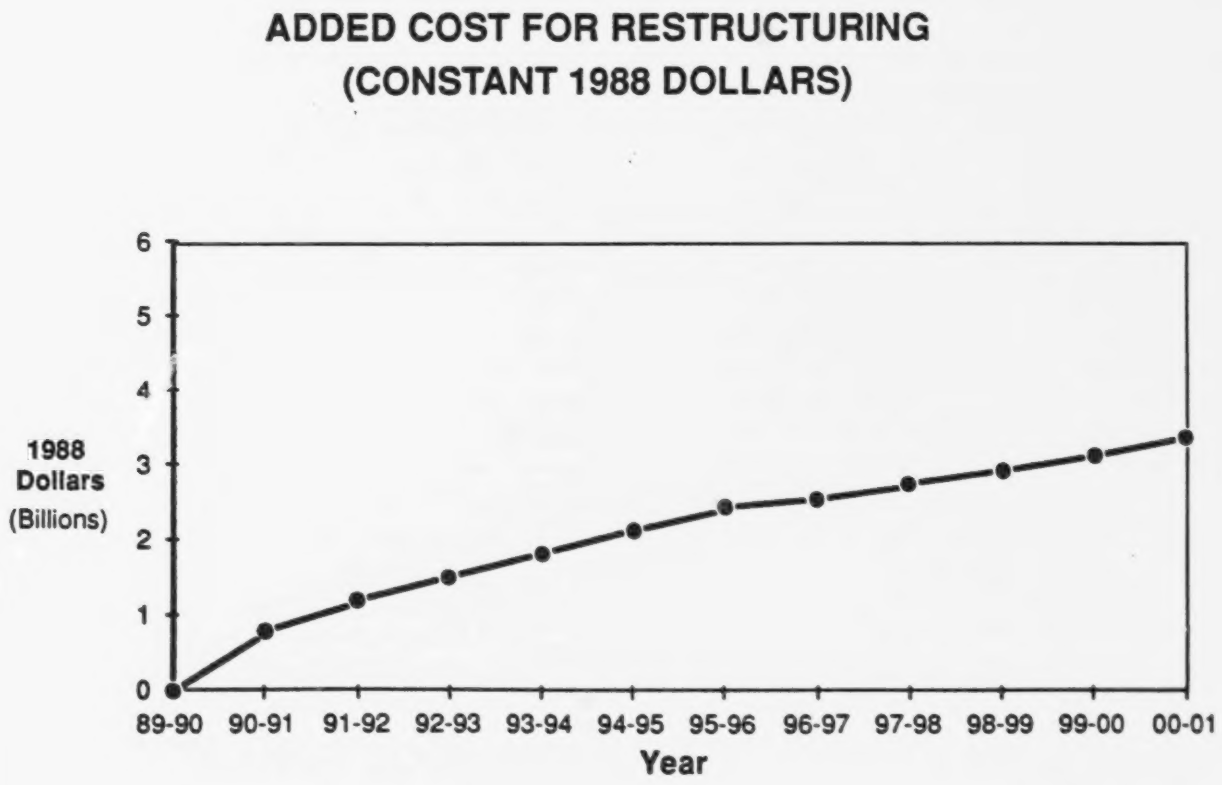
To supplement this activity, we propose that the state provide scholarships and fellowships in areas identified as critical. This process would begin with the state fully funding the existing Assumption Program of Loans for Education in the first year after enabling legislation. After new state mechanisms were in place, beginning in year three the state would award 125 scholarships, 125 fellowships, and funding for 500 part-time Assistant Teacher positions to introduce promising candidates to the field. These totals would be increased each year so that by year six four times as many awards would be made (see the Appendix on cost and transition for more details). Though there is no guarantee that students will take these awards at the rate proposed above, if they do, and if the program is administered by the State Department of Education so that quotas in the critical areas are met, shortages would be greatly reduced by the beginning of the 21st Century.

COSTS

State and local expenditures for implementing the recommendations will depend on how the reforms are phased in and on the severity of any difficulties that might be encountered during implementation.

Figure 5 shows estimates of the cost of this report's proposals phased in over an eleven-year period. These projections could be higher or lower depending on assumptions detailed in the Appendix. They nonetheless provide a sense of the magnitude of additional expenditures. The additional cost per year would start at low levels and gradually increase over eleven years to about $3 billion (in 1988 dollars). This estimate is the amount that would be spent over the current system, if expenditures per pupil were held constant and enrollment increased as experts currently project.

Figure 5



For comparison, the estimated 1988-89 total state, local, and federal expenditure for California's K-12 system is $22 billion. If expenditures per student for the current system were to increase by two to three percent per year in constant dollars (as they have been recently) for the next eleven years, and enrollment were to increase as projected, then total spending in the eleventh year would be between about $39 billion and $44 billion. This represents a marginal increase of between $7 billion and $12 billion over the amount that would have been spent had expenditures per student not increased. The projected costs of $3 billion for this report's recommendations are well below these totals.

The recommendations' cost represents the difference between the expenditures for new initiatives and the savings that accrue from a shift to a more efficient system. For example, although teacher salaries would be substantially increased, the transition would take advantage of the high teacher retirement rate in the next five years, and would gradually fill these positions with both new teachers who would be on a tenure track and Assistant Teachers who would be on a contract basis and paid less. Similarly, more widespread use of technology in classroom management and instruction would require additional expenditures for training, planning, and equipment acquisition; however, these costs would be offset by savings resulting from the higher student to teacher ratio that technology in conjunction with the use of Assistant Teachers would make possible. The cost estimates for the proposals presented here are based on a ratio of 30 students to one teacher and 18 students to one adult (Lead Teachers, Teachers, and Assistant Teachers). This change would produce better education at a lower net price.

The most expensive reforms (excluding the savings they introduce) are the establishment of pre- and primary school, teacher salary increases, and the introduction of Assistant Teachers. The greatest savings come from using Teachers more efficiently (by having a smaller number of Teachers per student, but a larger number of adults per student); from reduced construction costs (because of a shift to year-round schooling); and from a redirection of funds for such areas as staff development, remediation, special education, and early childhood education.

If the proposed reforms were implemented, there would be a net cost increase of an estimated $460 per student -- less than a ten percent increase in expenditures per student.

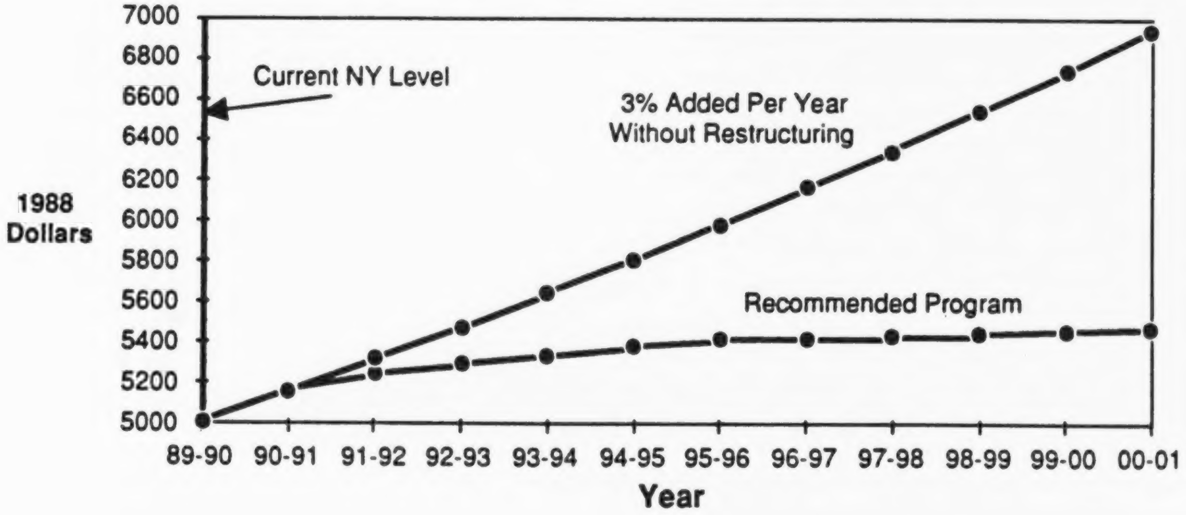
Figure 6 projects estimates of expenditures per pupil, comparing the cost of the proposed reforms to an estimate of what might be expected if current approaches to reform are followed. This comparison is important because California's extraordinary student enrollment growth will cause dramatic increases in total expenditures even if the cost per student remains the same. What if the cost per student increases at three percent per year, as depicted below? California's total expenditures on K-12 education might nearly triple to over $58 billion (assuming 3 percent inflation per year).

If this report's recommendations were fully implemented, California's rate of increase in expenditures per pupil would be slowed down over the long run. In the short run, the proposed reforms would cost no more than the incremental reforms many have suggested; they would cost considerably less than continuing to put more money into the current system without substantial cost savings; and they would limit the growth in expenditures per student as the savings from a more efficient system come into force.

The additional costs of the reforms would thus be an investment to allow a shift to a more cost-effective system. In this way, California could financially support an outstanding education system geared to the needs of the 21st Century.

Figure 6

COST PER PUPIL WITH AND WITHOUT RESTRUCTURING
(CONSTANT 1988 DOLLARS)



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